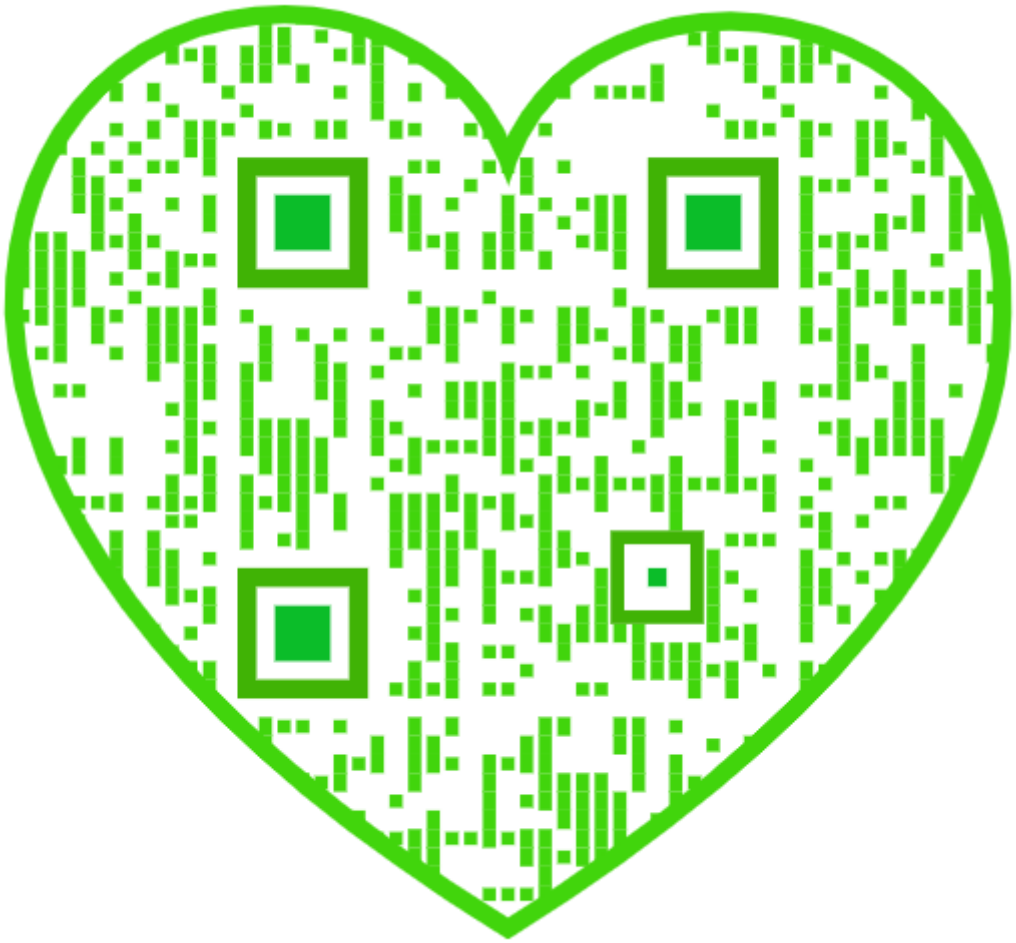

# MONEY and BANKING
# An Introduction

*By Richard W. Lindholm*

THE CONN. COUN. FOR THE ADV. OF ECON. EDUC
U-93 UNIV. OF CONN.
STORRS, CONN.

## *About the Author*

1. Present position: Dean of the School of Business, University of Oregon.
2. Former Federal Reserve Board Economist and Economic Advisor to the Governments of Vietnam and Pakistan.
3. Author of eight books in the area of finance.

## *About the Book*

1. For typical discussion type examination questions with complete answers, see the end of each chapter.
2. For a typical objective type final examination in money and banking with answers, see pages 193-204.
3. For a quick review of the basic facts about the American money and banking system and monetary theory and banking policy, read Chapters 1-10.
4. For a clear, simple and complete explanation of how the banking system expands and contracts the money supply, read Chapter 6.
5. For a complete and authoritative summary of all policy actions of the Federal Reserve System since its establishment, read Chapter 5.
6. For a list of reproduced charts and graphs prepared by the Federal Reserve Board, see Table of Contents. These are very helpful in forecasting and summarizing economic developments.
7. For definitions of over 300 technical terms, see Glossary.

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# MONEY and BANKING
## An Introduction

*By Richard W. Lindholm*
DEAN, SCHOOL OF BUSINESS
UNIVERSITY OF OREGON

1962

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# *Preface*

This Outline has been prepared for students and interested laymen who desire to understand the basic facts about the money and banking system of the United States. It emphasizes the underlying theories and policies which are studied in the first year college courses.

In ten brief chapters the fundamental principles, the organization, the framework, and all the important Federal Reserve and Treasury policy decisions are described and analyzed. In addition, at the end of each chapter, through the use of discussion type questions and answers, it is possible to go more deeply into continuing problems of lesser importance. In this way both vexing details and broad principles may be covered in the briefest possible space and in a way best suited to student needs. Others interested in our monetary and banking system will also find this approach more helpful than the conventional method.

The Outline includes an objective-type final examination *with answers* which provides the reader an opportunity to check his knowledge of the subject.

An extensive glossary defines all technical terms not previously defined, as well as additional terms related to money and banking and economics. The Outline will be found very helpful when studying or writing in these fields as well as when preparing for an objective type examination.

R. W. L.

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**VALUABLE**

# Reading Guide

## TO IMPORTANT TEXTBOOKS


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Thomas, Rollin G., *Our Modern Banking and Monetary System,* Prentice-Hall, Inc., 3d ed., 1957.

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Woodworth, G. W., *The Monetary and Banking System,* McGraw-Hill, 1950.

# VALUABLE READING GUIDE TO IMPORTANT TEXTBOOKS

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# Chapter 1

# MONEY

## TYPES AND USES OF MONEY

**Definition of Money.** Money in our society is perhaps best defined *as something which is ordinarily spent directly and does not require a transfer into something else to permit its being spent.*

Money to the sixteenth-century citizen meant metal coins. Later the term developed to include also paper money issued by governments or banks. Finally, the term "money" came to include also deposits of commercial banks which could be spent by writing a check.

Although the check (which is the use of a deposit to complete a transaction) is more limited than currency, it must be considered money for it is in general use as a medium of exchange; and the deposit itself is generally considered as the equivalent of currency.

TABLE 1

QUANTITIES AND TYPES OF MONEY OF THE UNITED STATES IN NOVEMBER, 1957
(In billions of dollars)

| | |
|---|---|
| Federal Reserve notes (including commercial bank holdings) | 26.9 |
| Treasury currency—total (including commercial bank holdings) | 4.7 |
| Demand deposits (excluding interbank) | 121.2 |
| Time deposits (all banks) | 86.6 |

Source: *Federal Reserve Bulletin,* Jan., 1958, pp. 39, 41.

Although time deposits cannot be spent by use of a check they are frequently included as a part of the money supply because there is much transfer of funds between time and demand deposits.

In addition, government securities and evidences of short-term business and agricultural debt, have developed in modern nations to the point where they possess almost all the characteristics of money. Usually, however, such credit instruments are considered near money rather than money. Other examples of near money are savings-and-loan shares and non-negotiable government savings bonds.

GROWTH OF DEPOSITS AND CURRENCY. Charts 1-A and 1-B summarize the growth of the quantity of money (with the exception of member bank reserves) from 1893 through 1956. The two periods of great growth were those of World War I and World War II. The charts make it quite evident that the expansion of the money supply has been largely dependent upon federal government fiscal activity during periods of warfare. In 1915 the total of deposits and currency was only a little over $20 billion, and within five years, or by 1920, this total had expanded to $40 billion. World War II had a similar effect, and the total of deposits and currency increased from $60 billion in 1939 to $178 billion in 1945. The increase in the quantity of deposits and currency during the boom of 1929 was just a ripple compared to these great swells that arose during the war period.

The Korean war period signaled a new movement toward an expanded money supply; which has continued despite the end of the shooting war. It should be noticed that since 1946 the quantity of currency in circulation (Currency outside of Banks) has remained constant at about $28 billion. The expanded money supply since the end of World War II has risen entirely as a deposit expansion. It is also worth noticing that the quantity of time and demand deposits have risen together since 1951; with the increase of time deposits being slightly the greater percentagewise and not showing the seasonal fluctuations apparent in the adjusted demand deposit total.

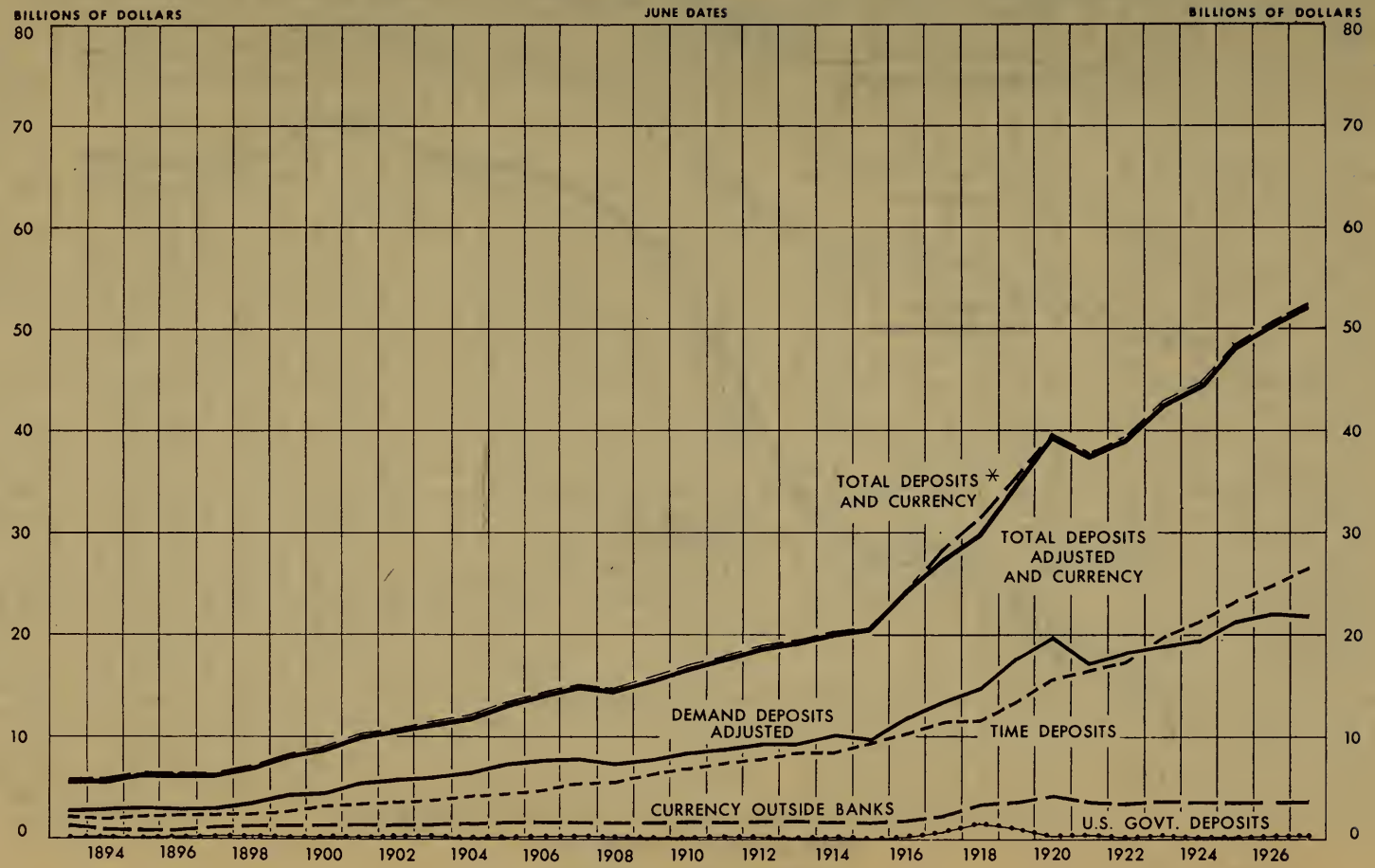
Total adjusted deposits and currency of the United States in 1957 was about 33 per cent greater than in 1947. This is an annual average increase of 3.3 per cent.

**Functions of Money.** The basic and normally the most important function of money is to make it easy to exchange goods and services. This is called the *medium of exchange* function. Objects perform this function efficiently if they possess the characteristics of *portability, indestructibility, homogeneity, divisibility and reunion,* and *cognizability*. In addition to performing the function of (1) a medium of exchange, money also serves as (2) a unit of value, (3) a standard of deferred payment, and (4) a store of value. The medium of exchange and unit of value

# CHART 1-A

## DEPOSITS AND CURRENCY

### ALL BANKS IN THE UNITED STATES

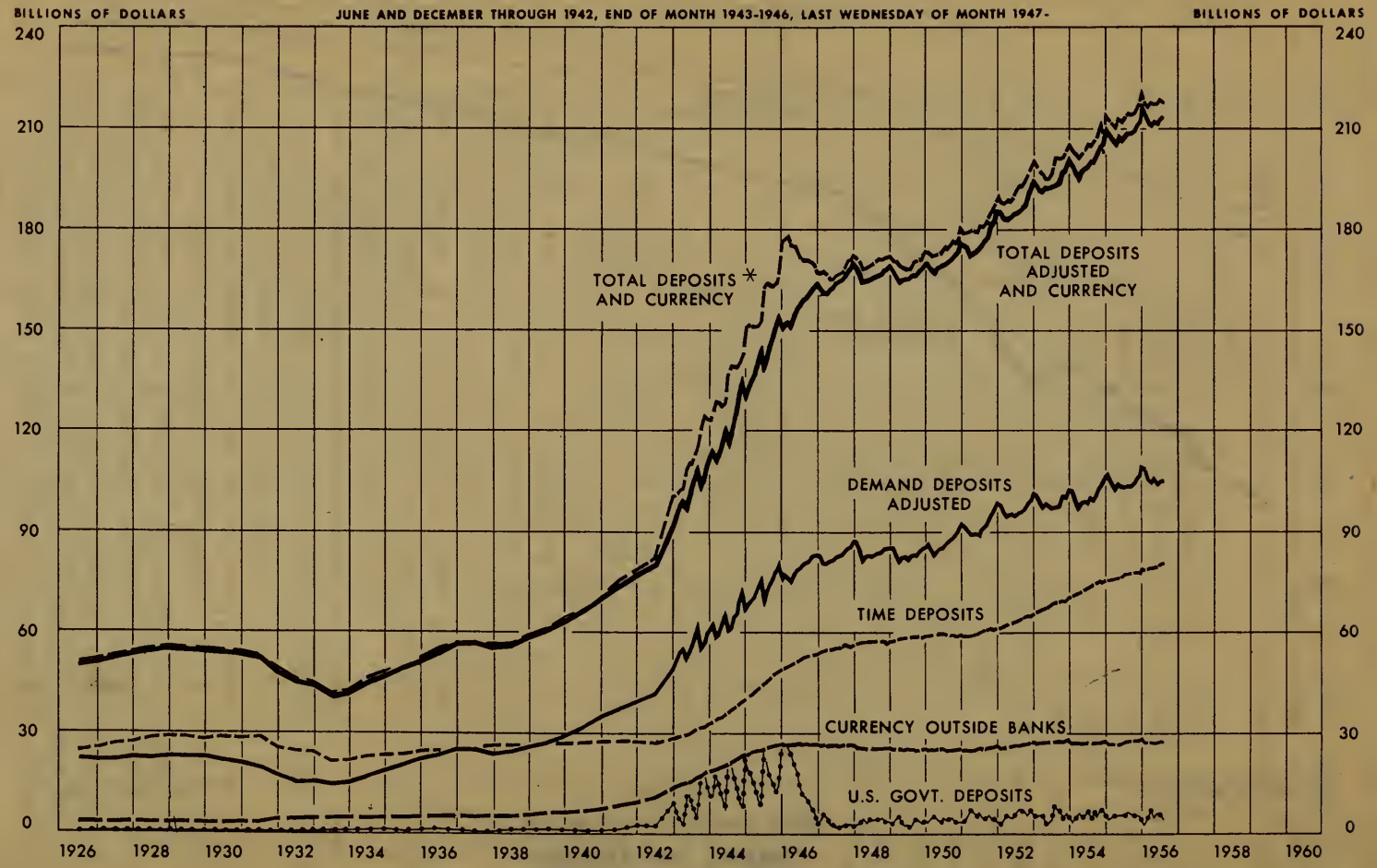



Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 8. *FOR ITEMS EXCLUDED SEE PAGE 116.

# CHART 1-B

## DEPOSITS AND CURRENCY

### ALL BANKS IN THE UNITED STATES




Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 9.

* FOR ITEMS EXCLUDED SEE PAGE 11B.

functions are frequently called the primary functions, and the remaining two the derivative functions.

UNIT OF VALUE. The function of a unit of value is being performed when all articles and services are commonly valued by stating them in terms of a certain number of units of one particular type of good. For example, when in the United States a person asks the price or the value of an article or a service and is told that it is $10, the dollar is serving as a unit of value. The practice of measuring the value of all items in monetary units greatly simplifies the problem of exchange and the determination of relative worth.

MEDIUM OF EXCHANGE. Money performs the function of medium of exchange and also sets the major conditions of a market economy by making it possible for an individual to pursue an intelligent economic policy of selling his goods to the one offering the largest number of monetary units and buying his goods from the one who will sell for the fewest. The only feasible alternative to this type of exchange is barter, which is much more tedious and complicated if the variety of goods traded is great.

STANDARD OF DEFERRED PAYMENT AND STORE OF VALUE. Money performs the function of a standard of deferred payment when credit is extended in terms of the repayment of a stated number of monetary units. Money is performing the function of a store of value when a quantity of it is held for a period of time. Today this is generally done by making a deposit in a bank. Money is obviously not the only store of value and in fact is not the most important; its great advantage is that it can be readily used at any time to gain control over any of the large variety of goods for sale.

**General Economic Function of Money.** Money has had an important effect upon the direction, speed, and type of economic development. The periods of great expansion in the quantity of money have also been periods of vigorous economic activity. The revival of economic activity in Europe during the 16th century is frequently attributed to the expansion of the quantity of money through the Spanish conquest and exploitation of Mexico and Peru. The economic expansion of the United States has often been closely related to its standard supplies of money.

It is dangerous, however, to relate economic expansion solely to abundance of money. This is vividly illustrated by the complete economic demoralization and stagnation in Germany after World War I and in China after World War II when the

money supplies were very great. In fact, part of the cause of the economic difficulties of many nations in the postwar period has been too much rather than too little money.

MONETARY POLICY. *A wise monetary policy is therefore one which supplies the correct amount of money to cause national income and resulting price levels to be at the point bringing forth the most efficient use of the nation's resources.* This is the ideal. Its achievement may require a decrease or an increase in the amount of money; success will also be affected by the distribution of money resources and money income. The nation's resources are usually most efficiently used if the price level is rising slowly and if aggregate production is expanding. Under these conditions more goods and services are being continually exchanged through the use of an ever growing money supply.

## MONETARY STANDARDS

**General Categories of Monetary Standards.** The monetary systems of most of the nations of the world are combinations of commodity money and paper money. *Commodity money* is money that possesses as great a value when in the form of goods or commodities as when stamped and given the power of *legal tender*. Money is also called commodity money if it can be converted into standard money or a standard commodity at a fixed rate. *Paper money* is money that cannot be converted into a fixed quantity of a standard commodity.

COMMODITY STANDARDS. Commodity standards are of several types. *Monometallism,* based on one metal, usually gold, has been the most common commodity standard during the 20th century. *Bimetallism* is based on two metals which are standard money at a fixed value in terms of one another. The legally established ratio between the two metals is known as the *mint ratio*. It has been popular in central Europe and the United States. *Symmetallism,* based on a single metallic unit in the form of a mixture of different metals in legally established proportions, has not been used. A *composite* commodity or commodity reserve standard is based on an assorted list of staple commodities which make up the standard unit. Composite commodity money is a theoretical ideal which is not out of the discussion stage.

PAPER STANDARDS. Paper standards are of two general types: *free* and *controlled*. Under the free paper standards, no

restrictions are placed upon the use of the money to complete international transactions, and its value in relation to other currencies is permitted to be determined freely in the money markets (where the value of the money of one country is determined in relation to the values of the money of other countries) of the world. Under a controlled paper standard, exchange rates and international transactions are strictly regulated.

The money standards of all the major countries are paper. (Sometimes the United States money system is considered a gold-backed currency domestically, and a limited gold bullion standard internationally.) However, the degree of control varies greatly, and the money of the countries exercising least control is called *hard* money. This money is considered much better. That is, it can be used to purchase goods and services with greater freedom than can the money of the countries which closely control the manner of its use.

The monetary standard of a nation is much less important today than it was before the development of monetary and fiscal tools. The important factor determining the desirability of a nation's money is the quantity of production available for consumption in relation to the quantity and use of money, rather than the money's convertibility into a standard metal. During the period since 1946, a money readily convertible has also possessed the desirable relationship toward the quantity of goods available for consumption.

**The Gold Standard.** At present no nation of the world is on the gold standard. The nations that have what is called a hard paper standard meet most international requirements of a gold standard, but the domestic requirements are ignored. Actually today Swiss francs and American dollars perform many of the international functions formerly allocated to gold.

REQUIREMENTS OF THE GOLD STANDARD. The basic requirements for a nation to be on the gold standard are: (1) laws must define the standard money unit as a particular weight of gold of a specific fineness, (2) the gold unit must be given the power of full legal tender, (3) free and unlimited coinage of gold must be permitted, (4) gold must be permitted to move freely out of the treasury into private hands and out of the country into the possession of foreigners, and (5) all types of money of the nation must be freely convertible into gold.

ADVANTAGES AND DISADVANTAGES CLAIMED FOR THE GOLD STANDARD. The principal advantages usually attributed to the gold standard are that it provides a monetary unit (1) in which the public has confidence, (2) that has a great stability

of value, (3) that requires little government interference, and (4) that is international yet does not require international agreements.

The principal disadvantages of the gold standard which have caused it to be abandoned by the nations of the world are (1) the flow of gold in a world of central banks does not determine the quantity of money, (2) great inflations and deflations can arise under the gold standard, (3) governments are not willing to permit their domestic price levels to remain at the mercy of the international movements of gold, (4) large gold movements arise even though the relative price levels of nations are in adjustment, and (5) it imposes restrictions on the independence of domestic economic activity.

TYPES OF GOLD STANDARDS. The *gold coin standard* which was in effect in most of the leading nations prior to 1914 provided for circulation of gold coins and conversion of all types of money into gold. It was abandoned because of the higher prices after World War I and the shortage of gold which made it necessary to increase the efficiency of gold use. The United States remained on the gold coin standard until 1933.

The *gold bullion standard,* which has been called the rich man's standard, provides for redemption of all types of money into gold bullion. This means that a rather large amount of funds must be possessed before gold can be obtained. It economizes the use of gold and has the effect of largely limiting it to settling international balances. The gold bullion standard is as effective as the gold coin standard in keeping the value of all types of money at par and in preventing a change in the value of a nation's money in terms of gold.

The *gold exchange standard* has sometimes been called the "limping" gold standard because it provides for the convertibility of a nation's money into the money of another nation which is convertible into gold. This indirect convertibility into gold also serves to keep the monetary units of a nation at a constant value in terms of gold. It was another device introduced after World War I to economize the use of gold.

WHY THE GOLD STANDARD IS UNLIKELY TO BE REINTRODUCED. The gold standard is unlikely to be reintroduced because:

1. The nations of the world are dedicated to using all monetary and fiscal powers available to maintain full employment and expand production. This necessitates conscious control over domestic prices, and thus government cannot permit prices to be dominated by international gold movements.

2. The gold standard is based on the quantity of money theory of prices. This simple explanation of price movements is partially inapplicable to the conditions existing in a modern nation.

3. The use of trade barriers and other restrictions to international trade is incompatible with the gold standard.

4. The use of the gold standard requires that the expansion of the quantity of liquid assets (money and near moneys) be determined by the expansion of the production of gold.

**The Bimetallic Standard.** The bimetallic standard in modern times has meant the use of gold and silver as standard monetary metals. The two outstanding examples of the use of the bimetallic standard are the United States and the Latin Monetary Union established in 1865 under the leadership of France.

REQUIREMENTS OF THE BIMETALLIC STANDARD. The basic requirements of a bimetallic standard are (1) free and unlimited coinage of gold and silver, (2) a fixed ratio between the value of the metals for monetary purposes, (3) both metals must be given the power of legal tender, and (4) both metals must be permitted to move freely out of the treasury into private hands and out of the country into the possession of foreigners.

ADVANTAGES AND DISADVANTAGES CLAIMED FOR BIMETALLISM. The principal advantages usually attributed to bimetallism are that it (1) provides for more stable prices because the operation of Gresham's law causes the cheaper metal to drive out the more expensive, thus reducing price fluctuations due to changes in the supply of one metal, (2) economizes the use of gold, (3) increases the base of the monetary standard.

The principal disadvantages of the bimetallic standard are (1) the monetary demand for the two metals is inadequate to keep their prices at a constant ratio, (2) international cooperation beyond that existing is necessary to make it work, (3) the weaknesses of the gold standard are applicable also to the bimetallic standard.

**Composite Commodity Standard.** The composite commodity standard would be the basis of what is called commodity reserve currency. The best known plan is the "Graham plan" named after Benjamin and Frank Graham, American economists who developed the scheme. The basic idea is to tie the value of the dollar or some international monetary unit to that of a "commodity composite" in exactly the same way that the gold standard tied the value of the dollar to that of gold.

REQUIREMENTS OF COMPOSITE COMMODITY STANDARD.

The basic requirements for a composite commodity standard are (1) legislation must provide a standing offer to buy and sell several commodities, (2) the price would be set for the bundle of commodities rather than for an individual commodity, (3) the reserves of commodities possessed by the monetary authority must be sufficient so that their sale would prevent a general price rise of the bundle of commodities used in the reserve, and (4) commodities must flow freely between nations.

ADVANTAGES AND DISADVANTAGES CLAIMED FOR THE COMPOSITE COMMODITY STANDARD. The principal advantages usually attributed to the composite commodity standard are that it would (1) provide a stable price level, (2) increase the base of the monetary system, and (3) provide a reserve of goods to be used during periods of shortages. The principal disadvantages are that (1) it requires international acceptance to be effective, (2) reserves might either become too large or run out, (3) the administrative problems related to the plan are very great, and (4) it may create a very strong political bloc by combining all major raw-material producers.

**The Paper Standard.** The paper standard is the basic standard utilized by all principal nations. The quantity of money is established by the banking and monetary authorities of the nation through application of certain principles established by legislation and custom. These principles, if followed, are supposed to provide a money system which will contribute to maintenance of economic stability and efficient utilization of resources.

The considerations to be included and their probable effects are discussed with considerable detail in Chapter 4.

The paper standard has a bad record of inflation because it has usually been utilized during periods of war when the economy was badly disorganized. Also previous experience was prior to the development of modern methods of gathering economic data and economic analysis procedures. The provision of a good monetary system today depends upon the establishment of procedures that will make the paper standard operate efficiently.

**The Currency and Banking Principles.** The currency principle requires that money be issued only in the form of gold or silver equal in value as a commodity to the value stamped upon it, or that paper money be issued only as a type of warehouse receipt. A monetary authority operating under the currency principle would not permit the amount of money to exceed the value of gold and/or silver held.

The banking principle is almost the exact opposite of the currency principle. It teaches that bankers should increase the amount of notes and deposits when loans are granted, and cause a decrease when loans are repaid. If this principle is followed the amount of money increases when the need expands and decreases when the need contracts. This principle is sound except that it does not provide a safeguard against imprudent and reckless banking. The system of also requiring an amount of reserves to back bank credit combines features of both the currency and the banking principles.

# QUESTIONS and ANSWERS

**Questions:**

1. What is money?
   See the discussions on page 1.
2. What is commodity money?
3. In what ways has the concept *money* become increasingly abstract?
4. Why does the quantity of money affect prices?
5. What are some of the factors which cause the expansion of the money supply to expand economic activity?
6. What are the determinants of the quantity of money in the United States?
7. How do bank loans increase the quantity of money?
   See the discussions on pages 119–126.
8. What are the currency and banking principles of note issue?
   See the discussions on pages 10–11.
9. Why is money sometimes called the veil which conceals the true nature of the economic system?
10. What are two readily available ways, other than the expansion of gold holdings, of expanding the total quantity of credit extended by the Federal Reserve System?
11. How can Treasury cash balances be used to ease or tighten credit conditions?
12. What is meant by "monetization of the federal debt"?
13. What is the difference between monetary and fiscal policy?
14. What were the principal reasons for devaluation of the British pound on September 16, 1949?
    See the discussions on pages 183–184.
15. What is meant by the velocity of money?

**Answers:**

1. Money can be generally defined as an object that is readily accepted from a stranger as full payment for any commodity or service. An object possesses this power only within a certain area, although today the dollar will perform this function in many areas outside the borders of the United States. The power to obtain control of all goods and services is money acting as a medium of exchange.

The nations of the world frequently issue restricted money. For instance, in the United States during the period of rationing of World War II, the dollar would not purchase all goods. In addition to the dollar, the purchaser, to obtain many goods, was required to present a ration stamp. During the postwar period a number of Western European countries, in an attempt to maintain a relatively high exchange value for their money, have placed restrictions on the way in which their money can be used. Strictly speaking, these media of exchange do not meet the definition of money.

2. Commodity money refers to money that has as great a value as a commodity as it has when it bears the stamp of a government and possesses the power of legal tender. The term *representative money* is used to indicate paper money backed by a commodity, usually gold or silver, that has a market value equal to the amount stamped on the paper money. This money is actually the equivalent of a warehouse receipt.

3. The name "pound," the British monetary unit, formerly represented a pound of silver. The "pound" today is largely a unit of account and even when it is represented by a piece of paper its value is not related to any particular commodity.

Cost accounting and modern management have utilized monetary units as a convenient measure of efficiency of operations. The importance of these uses has increased and made largely meaningless analyses of money that consider it anything other than an abstraction. For example, the velocity concept had meaning when money was used principally in hand-to-hand transactions or represented by checks written on demand deposits. However, this whole concept of velocity loses meaning when every payment act involving an immediate recording of this act is thought of as a receipt by another economic unit. Under these circumstances the velocity would be infinitely great.

If velocity is rather considered to indicate time interval between receipt and expenditure, it becomes meaningless when related to the inflow and outflow of bookkeeping entries. Debit and credit bookkeeping entires within a single giant corporation are not reflected in bank bookkeeping entries and are therefore also excluded from monetary analyses based largely on bank activities.

Finally, every charge account is an expansion of the quantity of money. Extension of credit by merchants expands the means of payment just as truly as extension of credit by commercial banks.

4. The quantity of money does not actually of itself change prices. It was formerly thought that this was the case; that is the basis of the quantity theory of money. Actually, the quantity of money affects prices only if the owners of this money use it to acquire additional goods and services. The desire of persons who possess control over money to use the money to acquire control over goods and services is affected by many relationships, such as the rate of interest, the size of the total money accumulations, the national income, and expectations regarding future price trends. The desire to keep money as such rather than to use it to acquire goods and services is called *liquidity preference.*

If persons have large stocks of money, they are likely to use them to acquire goods and service. This results in increasing the amount of money in the market place in relation to the quantity of goods, and in decreasing the value of money. The relationship which exists when the relative quantity of potatoes is increased is the same as that which exists when the relative quantity of money is increased. When the supply of potatoes is increased the farmer can buy less gasoline with the amount he receives from the sale of a bushel of potatoes. When the money supply is increased he can buy less gasoline with the dollar he withdraws from the bank. The quantity of money tends to affect prices because prices express the relationship between the value of money and the value of various goods and services.

5. Expansion of the supply of money reduces the interest rate required to induce relinquishment of liquidity. Reduction of the interest rate makes possible investments possessing a marginal efficiency that would not have been adequate to pay the higher interest rate prevailing before expansion of the money supply.

Expansion of the money supply will maintain aggregate

demand even though the offsets to savings arising at that level of employment are inadequate. Injection of new money is a method of maintaining money outlays at a previous high level when real investments fail to absorb the savings arising from that previous level of money outlays.

Possession of large quantities of liquid assets makes it easier to maintain aggregate demand. If disposable income should fall below that required to purchase current output at current prices, a portion of the liquid assets can be utilized while the necessary adjustments are made to restore disposable income to the necessary level for full employment of the factors.

Finally expansion of the money supply increases optimism and willingness to make commitments requiring future payments from income. This causes a further expansion of the means of payment through expansion of credit by nonbanking institutions. The effect is expanding business and increased efficiency of production up to the point where the majority of the factors of production are employed at their most efficient level.

6. Before summarizing the more important determinants of the quantity of money in the United States, it is necessary to point out briefly some factors that are sometimes considered important but actually are not. The outstanding example of this group is the quantity of gold and silver. Data of the quantity of money and the accumulations of gold and silver have recently shown little relationship. Although both gold and silver are tied to the monetary system, it can be concluded that their relationship to the quantity of money is of no current practical importance. For example, during World War II the United States lost about $2 billion of its gold reserve, primarily to Latin American countries, and also provided silver to be used by England in making purchases from India; however, during this period the quantity of money expanded very rapidly.

Another example related to the quantity of gold and silver is that of commercial bank reserves. In the past the quantity of excess reserves of banks had an important effect on the quantity of demand deposits. The ease with which banks can transfer a large portion of their assets into reserves has somewhat reduced the importance of this relationship.

The primary determinant of the quantity of money in the United States is the amount of borrowing from the Federal Reserve and commercial banks, of businesses, consumers, and the federal government. The great World War II expansion

of both demand deposits and currency in circulation was nearly entirely due to the expansion of federal government borrowing.

During the immediate postwar period the supply of money was maintained at levels approximating those of the war period through an expansion of business borrowing. The reduction of business loans and commercial bank failures during the 1930's caused the sharp drop in the quantity of money during the early portion of that period. Also, the increase of government loans and later business loans was responsible for the later expansion of the quantity of money. During the 1950's the expansion of consumer borrowing became an important factor in maintaining the quantity of money. Commercial and other loans to business have also expanded rapidly and have been a cause of monetary expansion. The postwar program of residential construction finance is an example of a development in borrowing which continues to have a considerable effect on the quantity of money.

The quantity of money can also be affected by Federal Reserve activities. The Federal Reserve program largely determines the supply of money through its effect on commercial bank loans. The Federal Reserve System directly increases the supply of money when it makes open-market purchases and decreases the supply when it makes open-market sales. However, the primary effect of this activity is expected in its influence on commercial bank activity.

The Treasury can affect the supply of money through its debt policy. For example, the supply of money would be reduced if a portion of the tax collections were used to repay federal debt owned by the Federal Reserve System, but would remain the same if the excess of tax collections were used to repay debt owned by individuals.

7. Bank loans extended to individuals, business concerns, or government can increase the quantity of money only if banks are permitted to operate on the fractional reserve system. Banks permitted to keep fractional reserves can effectively increase the quantity of money only if they are also expanding loans at the same time. If these circumstances prevail, the expansion of money may take place as follows:

The bank extends a loan to a borrower, making the funds available through an increase of his checking account by the amount of the loan. The bank is required to keep approximately 20 per cent of this deposit expansion as reserve. As a result, an original or primary demand deposit of $100 can provide

reserves for an expansion of derived demand deposits or checkbook money by $400. The quantity of money has been expanded fourfold. (See pages 1-2.)

The banks cannot increase the amount of money unless they have opportunities to make what the management considers to be sound loans or investments. Therefore, expansion of money by banks through extension of loans to businesses or others depends on business conditions or/and a type of guarantee of repayment, perhaps provided by the government. However, extension of loans to the national government is not dependent upon prosperity. The power of the national government to print money eliminates the possibility of failure to repay.

The bank in extending loans and purchasing securities acquires a number of types of assets such as commercial notes, mortgages, and government bonds. The individual bank can take these evidences of debt and sell or rediscount them with the Federal Reserve bank. When it does this, it obtains additional quantities of cash to use to provide reserves in back of deposits arising from expanding loans or security purchases.

8. See the discussions on pages 10–11.

9. This aspect was emphasized by economists who considered that the true economic relationships could be understood only when considered in real terms. To them it was the analysis of the quantity of goods and services that wages purchased (real wages) rather than their money value (money wages) which presented the correct economic picture. Relative money values themselves were considered unimportant, and meaningful relationships could be obtained only when society was considered in terms of a barter society. Under this type of economic understanding the only strictly monetary problems were those dealing with the relative prices of different goods.

Today the attitude toward the monetary aspects of economic activity has changed considerably. It is now generally assumed that nearly all areas of economic analysis have an important monetary aspect. The "money illusion" which was the veil that economists formerly insisted on eliminating is now considered important in understanding economic problems.

10. This may be done by (1) increasing the monetary value of gold, for example, from $35 an ounce to $50 an ounce and (2) reducing the legal gold reserve requirement, for example, from the present 25 per cent to 20 or 15 per cent. A third method would be reduction of member bank reserve requirements, which

would reduce Federal Reserve deposits required to back a given quantity of deposits.

11. Withdrawal of Treasury deposit balances from commercial banks to the Federal Reserve banks decreases the reserves of commercial banks. In the postwar period this action forced commercial banks to sell government bonds. The decrease of Treasury deposits with the Federal Reserve banks increases the money supply, and the expansion of Treasury deposits with the Federal Reserve banks decreases the money supply.

12. This would be the replacement of federal interest-bearing securities with noninterest-bearing notes and demand deposits. The 100 per cent reserve plan would provide for monetizing a large portion of the federal securities held by commercial banks.

13. The two are very closely related. Monetary policy is frequently limited to actions that do not reduce the total assets of individuals and do not result in purchase of goods or services. Fiscal policy refers to actions that reduce assets of individuals and do result in the purchase of goods or services. Government debt management under these definitions, is correctly considered both monetary and fiscal policy.

14. See the discussions on pages 183–184.

15. The velocity of money is the speed with which each owner of money spends it. The speed of the expenditure of currency cannot be measured but the speed with which demand deposits "checkbook money" is spent is measurable. In mid-1957 the annual rate of turnover (speed) of demand deposits varied from 47 in New York to 23 in 337 cities smaller than the seven largest in the United States. The velocity of money has increased by over 50 per cent during the past 8 years. This increase has meant that compared with 1949 each dollar, at least of the demand deposit portion of the money supply, did approximately the work of one dollar and a half in 1957. The change has permitted more business at higher prices with the current level of the money supply than would have been possible if demand deposit velocity had remained constant. The failure of the annual rate of turnover of demand deposits in 1957 to increase above the 1956 rate seems to show that velocity cannot increase much above the levels quoted above and is likely to decrease somewhat, as was the case in 1958.

# Chapter 2
# HISTORY of MONEY
# in
# THE UNITED STATES

## PAPER MONEY

**Colonial Experience.** The Indians of North America used wampum as a standard of value and medium of exchange. It served the need for money so well that the colonists used it also, and in Massachusetts, in 1649, it was actually made legal tender for small payments.

The colonists used the British pound, the Spanish dollar, and also paper money issued by the different colonial governments. (The North American Colonies pioneered in the use of paper money.) The Spanish dollar was widely used in commerce but accounts were generally kept in pounds.

"Bills of Credit" and "Continentals." The Continental Congress in 1775 provided for printing "bills of credit" in dollar denominations. It also issued large amounts of notes, called "Continentals." By 1780 the "Continentals" had practically no value. As a consequence, the framers of the Constitution refrained from granting the federal government the power to issue paper money. Not until the Legal Tender Cases of 1871 and 1884 was it finally decided by the United States Supreme Court that the provisions of the Constitution implied the grant to Congress of the power to issue paper money.

**First Bank of the United States, 1791-1811.** The First Bank of the United States was established as a part of Secretary of the Treasury Alexander Hamilton's plan for a federal financial system. For twenty years the Bank provided much of the nation's money and forced all other banks to redeem their notes promptly. The effect was the establishment of an acceptable paper currency that was provided by the commercial banks.

The Bank became unpopular through its conservative man-

agement and the strict standards of liquidity it forced upon state banks. At this time and until the Civil War the state banks also possessed the power to issue paper money, i.e., notes. The Bank's charter was not renewed when it expired in 1811.

**Second Bank of the United States, 1816-1836.** During the five-year period between 1811 and 1816, and for an additional four years after the establishment of the Second Bank, the United States monetary system was chaotic. New management of the Second Bank under Biddle restored considerable order to the nation's monetary system between 1819 and 1836, but the Bank was accused of playing politics. In addition, it aroused the ire of owners of state banks because of the conservative program of expansion forced upon them by the Bank through its ability to require prompt redemption of notes. Andrew Jackson won reelection to the Presidency in 1832 on a platform that called for winding up the Bank when its charter expired in 1836.

**State Banking, 1836-1863.** During this period of 27 years (1836-1863) the banking activity of the nation was entirely carried on by banking institutions chartered by the states. The number of state banks expanded from about 500 to approximately 1500. This threefold increase was due to (1) elimination of federal banking activity, (2) expansion of the population and financial activity of the nation, and (3) permission of loose banking practices.

WEAKNESSES. The loose banking procedures permitted led to malpractices in (1) bank capital structure, (2) bank note issues, and (3) bank assets. Frequently as little as 5 per cent of the capital stock of a bank was paid for with cash; the remainder was purchased with promissory notes and the like. The effect was a strong temptation to practice reckless banking procedures; for the actual losses to the owners from bankruptcy were very small.

NOTE ISSUES. The note issues of state banks were generally unlimited and unregulated. This encouraged overissue of bank notes (the paper money of the period) and the consequent depreciation of the value of the notes issued by many banks. The effect of the issuance of bank notes possessing a theoretical nation-wide circulation by hundreds of small state banks was a confused and disorganized paper money system. The paper money system of the nation did not regain the confidence of the business community until National bank notes became available and gradually replaced state bank notes.

The weakness of the state banking system is discussed in

terms of bank notes rather than deposits because at that time the practice of using checks as a method of payment had not gained wide usage in the United States.

SUFFOLK, NEW YORK, AND LOUISIANA BANKING SYSTEMS AS REMEDIES. To improve the nation's currency system a number of schemes to provide ready redemption were established. The Suffolk system which was established in Boston offered to hold deposits for country banks for the purpose of redeeming any of their notes presented to it. Country banks failing to maintain such deposits risked having the Suffolk Bank accumulate their notes and present large amounts for redemption at one time.

In New York, the Free Banking Act passed in 1838 provided for deposit of acceptable collateral with the comptroller of the state; the comptroller printed under the bank's name notes equivalent to the value of the acceptable collateral deposited. The system worked fairly well but did not prevent failure of New York banks and the redemption of their notes at a discount. In 1853 the banks of New York City provided for redemption of their notes at a daily clearing.

Louisiana state legislation prohibited a bank from paying out the notes of another bank, and required each bank to settle weekly for its balances due other banks of the system. This, in addition to the rather large amount of specie available as a result of the trade of the port of New Orleans, provided Louisiana with one of the few acceptable currency systems of the period.

**Greenbacks or United States Notes, 1862-1866.** The first paper money was issued by the federal government in 1862 when notes were printed to replace the demand notes issued by the Treasury in 1861. The new notes or greenbacks were irredeemable noninterest-bearing demand notes and legal tender for payment of all private debts. These notes depreciated in terms of specie but did not become worthless. The $325 million total issued by 1866 provided nearly half the currency of the nation for over ten years. (See United States Notes, Table 2, p. 23.)

**National Bank Notes, 1863-1935.** The system of National bank notes was introduced originally to provide a market for government bonds, but in its long history of over ninety years (1863-1935) it became known chiefly for its national uniformity. The plan was based upon the New York Free Banking Act and provided for issuance of notes by banks chartered by the federal government.

These notes were secured by United States bonds issued

for that purpose, and no bank could issue notes of greater value than its paid-in capital stock. The state bank notes were eliminated through assessment, on July 1, 1866, of a federal tax of 10 per cent on all state bank notes. In 1935 the U. S. Treasury used a portion of the profits from the devaluation of gold to retire bonds that could be used as collateral for National bank notes. Issuance ceased as of August 1, 1935. (See Table 2, p. 23.)

**Silver Certificates, 1878-19—.** The first United States silver certificates were issued in 1878. Silver certificates have continued as a part of the nation's paper money since that time. Legislation of 1878 and 1890 which provided for issuance of silver certificates was repealed in 1893, but the money was not withdrawn. (See Table 2, p. 23.) In 1934 legislation was again passed providing for issuance of silver certificates.

The 1934 act provided that silver certificates be issued in an amount not less than the total cost of the silver purchased by the federal government under provisions of the act. Silver certificates in circulation totaled $2,257 million on May 31, 1949. The additional silver certificates issued since 1934 have not caused an expansion of the total quantity of paper money; rather they have acted as substitutes for additional quantities of Federal Reserve notes.

REASON FOR USE OF SILVER. Silver was used during the 19th century because the United States had had very unfortunate experiences with paper money unbacked by a commodity customarily used for monetary purposes. Examples of this unfortunate experience were the Continental currency during the American Revolution, which became worthless, the state bank notes of the middle 1800's which in many cases became partially valueless, and finally the greenbacks of the Civil War period, which fell below par. With this background it was politically impossible to obtain substantial backing for issuance of more money not backed by either gold or silver. An additional factor that must not be neglected was the desire of the mining interests of the west for a more profitable market for the silver.

Prior to the development of the Federal Reserve central-banking techniques and the utilization of deficit financing possibilities, free coinage of silver was very nearly the only usable tool available to the government for expanding the quantity of money. The use of silver since 1930 to expand the quantity of money is an example of the slow change of established monetary practices. The use of silver today does not possess the antide-

flationary advantage that it did prior to the establishment of the Federal Reserve System and the development of deficit finance opportunities. The current purchase of silver is merely a government subsidy of an industry producing a product which can-

## TABLE 2

### KINDS OF UNITED STATES CURRENCY OUTSTANDING AND IN CIRCULATION

[On basis of compilation by United States Treasury. In millions of dollars]

| Kind of currency | Total outstanding, Mar. 31, 1957 | Held in the Treasury | | | Held by F. R. Banks and agents | Currency in circulation[1] | | |
|---|---|---|---|---|---|---|---|---|
| | | As security against gold and silver certificates | Treasury cash | For F. R. Banks and agents | | Mar. 31, 1957 | Feb. 28, 1957 | Mar. 31, 1956 |
| Gold | 22,306 | 21,659 | [2]647 | ..... | ..... | ..... | ..... | ..... |
| Gold certificates | 21,659 | ..... | ..... | 18,811 | 2,816 | 33 | 33 | 34 |
| Federal Reserve notes | 27,500 | ..... | 97 | ..... | 1,429 | 25,974 | 26,001 | 25,734 |
| Treasury currency—total | 5,086 | [3]*2,403* | 60 | ..... | 447 | 4,578 | 4,541 | 4,571 |
| Standard silver dollars | 488 | 194 | 40 | ..... | 6 | 248 | 247 | 232 |
| Silver bullion | 2,209 | 2,209 | ..... | ..... | ..... | ..... | ..... | ..... |
| Silver certificates and Treasury notes of 1890 | [3]*2,403* | ..... | ..... | ..... | 337 | 2,066 | 2,040 | 2,126 |
| Subsidiary silver coin | 1,361 | ..... | 16 | ..... | 60 | 1,285 | 1,279 | 1,235 |
| Minor coin | 480 | ..... | 2 | ..... | 12 | 466 | 466 | 446 |
| United States notes | 347 | ..... | 2 | ..... | 30 | 315 | 309 | 315 |
| Federal Reserve Bank notes | 138 | ..... | [4] | ..... | 2 | 136 | 137 | 151 |
| National Bank notes | 63 | ..... | [4] | ..... | [4] | 62 | 62 | 65 |
| Total—Mar. 31, 1957 | [5] | 24,062 | 804 | 18,811 | 4,692 | 30,585 | ..... | ..... |
| Feb. 28, 1957 | [5] | 24,053 | 809 | 18,811 | 4,932 | ..... | 30,575 | ..... |
| Mar. 31, 1956 | [5] | 23,485 | 777 | 18,221 | 4,427 | ..... | ..... | 30,339 |

[1] Outside Treasury and Federal Reserve Banks. Includes any paper currency held outside the continental limits of the United States. Totals for other end-of-month dates are shown in table above; totals for Wednesday dates in table on p. 530.

[2] Includes $156,039,431 held as reserve against United States notes and Treasury notes of 1890.

[3] To avoid duplication, amount of silver dollars and bullion held as security against silver certificates and Treasury notes of 1890 outstanding is not included in total Treasury currency outstanding.

[4] Less than $500,000.

[5] Because some of the types of currency shown are held as collateral or reserves against other types, a grand total of all types has no special significance and is not shown. See note for explanation of duplications.

NOTE.—There are maintained in the Treasury—(1) as a reserve for United States notes and Treasury notes of 1890—$156,039,431 in gold bullion; (2) as security for Treasury notes of 1890—an equal dollar amount in standard silver dollars (these notes are being canceled and retired on receipt); (3) as security for outstanding silver certificates—silver in bullion and standard silver dollars of a monetary value equal to the face amount of such silver certificates; and (4) as security for gold certificates—gold bullion of a value at the legal standard equal to the face amount of such gold certificates. Federal Reserve notes are obligations of the United States and a first lien on all the assets of the issuing Federal Reserve Bank. Federal Reserve notes are secured by the deposit with Federal Reserve agents of a like amount of gold certificates or of gold certificates and such discounted or purchased paper as is eligible under the terms of the Federal Reserve Act, or of direct obligations of the United States. Each Federal Reserve Bank must maintain a reserve in gold certificates of at least 25 per cent against its Federal Reserve notes in actual circulation. Gold certificates deposited with Federal Reserve agents as collateral, and those deposited with the Treasurer of the United States as a redemption fund, are counted as reserve. Gold certificates, as herein used, includes credits with the Treasurer of the United States payable in gold certificates. Federal Reserve Bank notes and national bank notes are in process of retirement.

Source: *Federal Reserve Bulletin*, May, 1957, p. 537.

not be considered vital to the welfare of the citizens of the United States.

## History of Silver Legislation

1. Although federal legislation providing for free coinage of silver was passed in 1792, coinage was suspended until 1834 by an executive order of President Jefferson. The order was issued because the money was being used in the West Indies and not the United States.

2. The Coinage Act of 1834 provided for free coinage of silver and gold; however, the mint price set undervalued silver, and silver dollars were soon driven out of circulation.

3. In 1873 legislation eliminated the silver dollar. This caused little concern at the time because the mint price for silver was below the market price. The price of silver soon began to decline and the legislation became the "Crime of '73." For the first time the market price of silver fell below the $1.29 which the mint had been offering since 1834.

4. In 1878 the Silver Purchase Act, often called the Bland-Allison Act, was passed. This Act required the Treasury to buy each month at least $2 million and not more than $4 million of silver to be coined into dollars of the old weight and fineness. The Treasury purchased the minimum amount provided in the Act.

5. In 1890 the Sherman Silver Purchase Act was passed. This Act provided for purchase of 4½ million ounces of silver monthly at the prevailing market price. The silver was paid for with new full-legal-tender treasury notes. Despite these rather considerable Treasury purchases of silver, the price of silver continued downward. This downward trend in the value of silver was partly due to the reduced use of silver for currency by the major countries of the world.

6. In 1918 the Pittman Silver Purchase Act was passed. This Act provided for sale of the silver accumulated under the Bland-Allison and the Sherman Acts to Great Britain who needed it to pay for purchases made from India during World War I. It also provided that this silver, which was sold for $1 an ounce, be replaced with domestically produced silver which would be purchased at the same price. This was a definite subsidy to domestic silver producers, whose output was selling for about 70 cents an ounce.

7. In 1933 the so-called "Thomas inflation amendment" to the Agricultural Adjustment Act gave the President power to

establish free coinage of gold or silver at a fixed ratio and to accept foreign obligations in silver at a price of 50 cents an ounce. Foreign obligations (allied war debts) to the amount of $200 million only could be repaid by this method.

CURRENT SILVER LEGISLATION. In 1934 a new Silver Purchase Act was passed. It provided for purchase of silver by the Treasury in amounts at times and at prices (but not to exceed $1.29 per fine ounce) which it "deems reasonable and advantageous to the public interest." The law further stated that silver be purchased until its monetary value was equal to 25 per cent of the monetary stocks of gold and silver held by the government. This goal has not been reached; at the time this is being written its value is about 10 per cent of the total value of monetary metal. Under this legislation silver has been bought at net prices varying from 64.5 to 90.5 cents an ounce. The latter higher price was established in 1946. These silver purchase legislative acts have resulted in accumulation by the Treasury of the fantastic amount of over 100,000 tons of silver.

**Federal Reserve Notes, 1913-19—.** The Federal Reserve note was provided for by the Federal Reserve Act of 1913 to supply the nation with an elastic money system. The apparent need was for a currency that would increase in quantity when the public demanded greater quantities. Need for a currency to decrease with the reduction of the public's demand for currency has never existed, for the public always returns unwanted currency to the banks. By 1920 Federal Reserve notes were of greater aggregate value than all other types of currency combined, and today there is no other important type of currency except silver certificates. (See Table 2, p. 23.)

AN ELASTIC CURRENCY. The Federal Reserve note was originally established as a type of paper money the quantity of which was determined by the amount of discounted commercial paper. It was believed that the amount of this collateral would vary to provide the desired elasticity. In practice, however, it was soon learned that no dependable close relationship existed between the Federal Reserve holdings of discounted commercial paper and the need for currency.

ACTUAL PROVISION OF ELASTICITY. The Federal Reserve note did not become a type of money that varied automatically to meet the needs of business. Instead the needed elasticity was provided by establishing procedures which enabled Federal Reserve officials and commercial banks to expand the amount of currency when needed. For example, in 1917 provision was made for issuing Federal Reserve notes against gold reserves

held by the Federal Reserve System. Also, member banks were able to expand the currency supply by borrowing from the Federal Reserve banks on the security of federal government bonds or by depositing funds that arose from Federal Reserve purchases of securities.

Finally, in 1932 the Glass-Steagall Act provided for issuance of Federal Reserve notes against federal government bonds held by the Federal Reserve banks. The very great expansion of Federal Reserve notes during World War II was made possible through application of the Glass-Steagall Act, purchase of federal bonds by the Federal Reserve banks, and Congressional decrease of gold backing requirements. On October 31, 1949, there were $24.0 billion of Federal Reserve notes outstanding, an increase of $19.5 billion from the 1939 total. During the same period total federal government securities held by the Federal Reserve System expanded from $2.5 billion to $18.0 billion.

**Federal Reserve Bank Notes, 1913-1945.** The history of the Federal Reserve bank note, which was provided for in the original Federal Reserve Act of 1913, has been varied, but not very important. On June 12, 1945, Congress repealed the power of the Federal Reserve banks to issue this type of paper money. (See Table 2, p. 23.) The intent of the original 1913 legislation was to use Federal Reserve bank notes to replace National bank notes. Thus the federal government bonds that could be used to back National bank notes were also eligible to back Federal Reserve bank notes. This intent did not materialize, and Federal Reserve bank notes were actually issued only during three separate currency emergencies.

Use of Federal Reserve Bank Notes. The first emergency was the reduction of silver certificates during World War I that arose through sale of silver to Great Britain for export to India. These silver certificates were replaced by a special issue of Federal Reserve bank notes. The second emergency arose during the banking holiday of March, 1933, when it appeared desirable, because of the shortage of gold reserves, to provide for issuance of currency not backed by gold. Each of these issues amounted to about $270 million, and each was discontinued after a few years. The third emergency started in December 1942, and arose from the need for additional currency to meet the expanded economic activity of the war. The principal justification for the issuance of $660 million at this time was that the notes were already printed and would there-

fore conserve labor and material during the war. The power for the World War II issue arose from the provisions of the Bank Emergency Act of 1933 which had not been repealed.

**Additional Paper Money Experience.** The Thomas Amendment of May 12, 1933 provided that the Secretary of the Treasury may issue $3 billion of unsecured greenbacks to be used to retire the federal debt. This legislation was not used as a basis of action, and was finally repealed in June, 1945.

CONFEDERATE CURRENCY. During the War Between the States, the Confederacy financed a considerable part of its war expenses by issuing paper money. In addition banks and cities throughout the South issued paper money. A large portion of this local paper money, including all Confederate currency, became worthless after the Confederate defeat.

## METALLIC MONEY

**The Silver Dollar.** In 1785, Congress, under the Articles of Confederation, adopted the dollar as the monetary unit. The Monetary Act of 1792 under the new Constiution continued the dollar as the standard unit and provided for its coinage in gold and silver. The weight of gold and silver assigned to the standard unit was believed by Alexander Hamilton, Secretary of the Treasury, to approximate their relative values. The standard dollar in both gold and silver was declared legal tender and was the only money to possess this power until the Civil War. The establishment of independent gold dollars and silver dollars as standard units placed the United States on a bimetallic standard.

PERIOD OF SILVER DOMINANCE. Although the United States had a bimetallic standard, nearly all circulating standard currency from 1792 until 1834 was silver. This arose because the official United States mint ratio gave a higher relative value to silver than did the mint ratios of other countries or the world markets. This overevaluation of silver made it advantageous for all foreigners to pay their foreign bills in gold. The standard gold coins that did circulate commanded a premium.

**The Gold Dollar.** The Act of June 28, 1834 reduced the fine content of the gold dollar so that the gold dollar was undervalued. Consequently, silver flowed from the country and gold flowed in. Gold thereafter virtually replaced silver. The replacement was so complete that although officially a bimetallic

standard existed, the actual standard money of the country was gold. The gold dollar was the circulating standard and legal tender currency from 1834 until 1861.

During the Civil War most of the gold and silver coin of the country was exported. Throughout the period of the 1870's very little gold and silver currency circulated within the country.

RESUMPTION OF SPECIE PAYMENT. The resumption of specie payment in 1879 placed the United States on a *de facto* gold standard with the gold content of the dollar unchanged from that established in 1834. This was the case despite the provision of legislation permitting the Treasury to redeem greenbacks, at its option, in either gold or silver. Actually the Treasury always redeemed in gold. The Act of 1900 legally established the gold standard. This was done by requiring the Secretary of the Treasury to keep all forms of money issued at par one with another, and one type of money issued was gold. The effect was to keep all forms of money at par with gold.

ELIMINATION OF GOLD CURRENCY. Gold continued to circulate until March 9, 1933, when legislation was passed making it unlawful for the general public and the banks to hold gold and gold certificates. The legislation of 1933 and 1934 eliminated the gold dollar which had possessed an important place in the circulating currency of the nation for exactly 100 years.

**Subsidiary Coinage.** The nations of the world experienced great difficulty in maintaining a satisfactory system of subsidiary coinage until the principles of *token money* were developed and utilized. When the metal value of subsidiary coins was equal to the coined value, the variations in the relative worth of the metals used were constantly causing an overabundance of one coin and a shortage of another. If this problem were avoided by making the seigniorage great, the tendency existed to produce too many subsidiary coins and too few coins upon which the seigniorage was small. Paper money of small denominations has always been difficult to handle and expensive because of the speed of replacement necessary. Also, small denomination paper money is not suitable for use in coin machines. Despite these disadvantages, small denomination paper money has been issued in the United States, particularly during the period of the Civil War. This money acquired the nickname "shinplasters."

PRINCIPLES OF TOKEN MONEY. The principles of token money considered most basic are:

1. The coins should be issued in unlimited amounts but only as sales to the public in exchange for standard money.

2. The market value of the metal in the coins should be well below the face value.

3. The coins should be redeemable in standard money without charge and in any amount.

4. The coins should be convenient in size, attractive in appearance, durable in use, and individual in feature.

# QUESTIONS and ANSWERS

**Questions:**

1. What is the difference between the gold-coin standard and the gold-bullion standard?
2. What changes would have to be made to put the United States on a gold-bullion standard? On a gold-coin standard?
3. What were the more important ways in which the world's gold supply was economized in the 1920's to make possible a general return to the gold standard?
4. Describe the purpose and the operations of the Tripartite Agreement.
5. What are the apparent major uses of gold today?
6. What does the term *free coinage* mean?
7. What important additional monetary powers were acquired by the federal Treasury during 1933 and 1934?
8. What was the gold sterilization program?
9. What is meant by the bimetallic standard?
10. Why has silver been important in the monetary history of the United States?
    See the discussions on pages 22–23.
11. What were the sources of the chief support of the Bland-Allison Act?
12. What have been the results of the Silver Purchase Act of 1934?

**Answers:**

1. Under the gold-coin standard, gold must be freely minted into coins of full weight. Also, anybody holding any other type of money must be able to convert it freely into gold. In general

the standards of the principal countries were of this type during the 19th century. (See pages 7–9.)

The gold-bullion standard varies from the gold-coin standard in that only rather large quantities of money may be transferred into gold, and these bars of gold do not circulate. When England and France were on the gold-bullion standard in the 1920's, the minimum quantity of gold which their treasuries would sell was 400 ounces. The gold-bullion standard prevents the nation's currency from depreciating in value because all liquid assets are directly or indirectly convertible into gold. The gold-bullion standard has been favored because it is more economical in its use of gold than the gold-coin standard, and at the same time, it meets the needs of convertibility and international trade as efficiently.

2. If unrestricted gold exports, private gold ownership and a free market for gold were established, the United States would be on the gold-bullion standard.

The United States would be on the gold-coin standard if, in addition to the above, gold coins were available to everyone in exchange for all types of money.

3. Gold coins were generally taken out of the hands of the public and the banks, and all gold was concentrated in the hands of the central banks (gold-coin standard abandoned). The gold-exchange standard was adopted rather than the strict gold standard. Under this arrangement funds on deposit in gold standard countries, usually Great Britain or the United States, were counted as a part of central-bank reserves. Gold withdrawals were permitted only if made in large quantities and then gold was available only as bullion (gold-bullion standard).

4. The agreement was reached in October, 1936, when France devalued her currency. It was originally an Anglo-French-United States compact, but other countries including Netherlands, Belgium, Switzerland, Brazil, and Italy kept its provisions also. The agreement was for each country to establish stabilization funds to be used to control relative values of the currencies of each country. The agreement did not set definite parities. Its major purpose was to prevent competitive depreciation of currencies, which was having a very undesirable effect at the time. An additional purpose was to smooth out the movements of exchange rates as established in the money markets of the world.

5. It has been an important American import and one of the few imports against which a tariff is not levied. The willingness of the United States to import unlimited quantities of gold at $35 an ounce has encouraged gold production throughout the World. The huge United States stock of gold has given the American dollar a great psychological advantage over all other currencies. The importance of gold mining in the English-speaking nations and the United States gold policy have combined to make it easier for the United States to lend economic aid to these ideologically sympathetic areas.

6. It means that the mint is required to coin, without assessment of seigniorage, all designated metal, usually gold or silver, brought to it to be made into coins. However, the conditions of free coinage are not violated if the mint makes a small charge to cover the cost of transferring the metal into coins.

7. During 1933 and 1934 the federal Treasury acquired (1) the responsibility for all domestic and international gold transactions; (2) the gold stock of the nation; and (3) an exchange stabilization fund of $2 billion.

8. The Treasury, for a period during 1936 and 1937, prevented gold from becoming a base for credit expansion by paying for gold additions with funds borrowed from the public rather than by providing gold certificates to the Federal Reserve System.

The program was abandoned because of popular opposition toward increasing the size of the federal debt to finance gold imports and because the recession of 1938 again made encouragement of an expanded money supply desirable monetary policy.

9. This standard requires unlimited purchase of two metals at a set mint price. A necessary corollary is free and unlimited coinage of both metals at a fixed legal ratio of weights, and full legal tender of both types of coins at this ratio.

10. The answer is partly political but not nearly so much so as is often assumed. The economic basis, particularly of the silver legislation of the 19th century, was very important. The great debates to provide for free coinage of silver in the 1870's and 1890's were closely related to the need for expanding the quantity of money (expenditures) to remove the undesirable economic consequences arising from the falling prices of the period.

11. One source was the belief that use of silver would expand the amount of money and cause price increases. Another was the desire of the silver miners to sell more silver at higher prices.

12. The Act provided that silver be purchased until its value was 25 per cent of that of the total specie reserve or until the market price of silver reached the mint value of $1.29 per ounce.

The Act through its effect in drawing silver to the United States was partly responsible for forcing China and Mexico off the silver standard. It has perhaps increased the price of silver by about 30 cents an ounce and is largely responsible for the approximately $2 billion of silver certificates which have acted as a substitute for Federal Reserve notes. The Act has had the effect of giving the United States silver producers a substantial subsidy.

It is very doubtful that the Act has expanded the amount of money beyond the limits that it would have reached if large-scale silver purchases had not been made.

# Chapter 3
# BASIC CHARACTERISTICS of THE UNITED STATES BANKING and MONETARY SYSTEM

This chapter briefly considers the major characteristics of the banking and monetary system of the United States. In many instances these characteristics are fundamental to an understanding of why the institutional controls have developed as they have and why certain types of problems have continued year after year.

## SMALL BANKING UNITS

A fundamental feature of the commercial banking system of the United States is its decentralization. There are about 14,000 different commercial banks in the United States while Canada has ten banks, Great Britain five banks, and France only four dominant banks. Canada, Great Britain and France have extensive branch bank systems which permit a few banks to serve the whole nation. The United States also has many commercial bank branches—the total number is about 6,500—but fundamentally the commercial banking system of the United States is one of many independent banks.

### Financial Resources of Many Banks Small

Because the United States has many independent banks, many of them are small. In fact, about 20 per cent of the commercial banks have deposits of less than $1 million, and about 40 per cent have deposits of less than $2 million. The trend through mergers and consolidation is definitely in the direction of larger commercial banks. However, this trend has

been its strongest in the large cities where the banks which are brought together are already large.

## Setting Monetary Policy

One problem that has arisen from this large number of banks is how to develop a monetary policy. The presidents of all the banks could not be consulted as it is possible to call in the heads of the five commercial banks of Great Britain. Also, it would not be proper to consult only the heads of the largest big city banks for then the other banks, and rightly so, would feel that they are being discriminated against.

The establishment of the Federal Reserve System with its twelve district banks and twenty-four branches which was given the responsibility of establishing monetary policy was the answer that was finally taken in 1913. However, the powers that Congress saw fit to bestow upon the Federal Reserve System, even after the grants of additional powers (in the mid-1930's some Federal Reserve powers were transferred to the Treasury) through the years, frequently prove inadequate to control monetary policy as it is actually developed by the commercial banks.

## Providing Deposit Safety

Another very important problem related to the large number of independent banks and their small size has been how to assure the safety of the deposits made in these banks. Because these independent banks were relatively weak financially, and because they were only able to keep a fraction of their deposits in specie or readily saleable assets, a bit of imprudence on the part of one banker would be very likely to lead not only to losses to his depositors but to losses to the depositors of many sound banks. This impact was likely because the losses of one group of depositors would destroy the faith of depositors in other banks causing them to request specie which would force the commercial bank into bankruptcy.

The first efforts to solve this problem established minimum reserve requirements to assure that all commercial banks could at least meet for a time demands of depositors for specie (or paper money). This was helpful, but many banks continued to fail. Later this was supplemented by establishing supervisory agencies that carefully examined bank records to prevent commercial banks from following a policy that would lead to later

insolvency. Also, commercial bank chartering legislation has established ratios of capital to deposits. This is another effort to provide greater assurance that depositors in commercial banks would not lose through bank failures. The final development to protect the depositors of the relatively weak commercial banking units of the United States was the establishment by Congress of a system of deposit insurance. This was done in 1934 on the national level (previously, several states had experimented unsuccessfully with the procedure) by the setting up of the Federal Deposit Insurance Corporation (FDIC).

## Dual Banking System

The United States is a Federal republic, and a second fundamental feature of our commercial banking system is the "dual banking system" which has arisen from both state and federal government chartering of commercial banks. In the past this power of chartering and regulating commercial banks has been the focus of many sharp political battles and the issue is still very much alive. The net effect of the operation, side by side, of commercial banks chartered by state governments and the federal government has been an increase in the number of banks and a reduction of the strictness of commercial bank regulation by government agencies.

## Long Term Liabilities With Short-Term Assets

A third feature of the American commercial banking system that has caused much trouble, but has also probably been a very important factor in the rapid development of the country, has been the extension of long-term loans. The basic liability of commercial banks in the United States, as elsewhere, is the demand deposit which is a short-term liability. Conventional commercial bank development provides for the backing of these deposits with short-term loans so that in case of need the management of the bank could meet depositor demands by calling in loans extended. Throughout the history of the United States commercial banks have been engaged in making loans for real estate development and for the expansion of productive facilities. These loans have always been relatively long term and could not be quickly called in to meet a sudden demand of depositors for their money. The trouble this method of operating a com-

mercial bank is likely to cause is obvious. The banking system expands loans and deposits when times are good and every project seems to have profit possibilities. Then after a bit, a setback occurs in one industry, and depositors become anxious and start withdrawing their deposits in cash. Soon, several banks are unable to meet these demands because many of their assets consist of long-term loans. The result is a few, or perhaps many, bank failures; and as a result, a sharp drop in the quantity of money, and perhaps a sharp fall of prices and many business failures.

## GOVERNMENT ACTION TO AFFECT LIQUIDITY DESIRES

The movements in prices and business activity that are registered through changes in commercial bank assets and deposits are based on fundamental changes in the desires of businesses and individuals to be in debt, or to have a cash balance, or to purchase new businesses and expand, or to reduce operations and contract. This psychological change which is affected by many factors is called "changes in liquidity desires."

INCREASED EMPHASIS ON SECURITY. Four areas of increased liquidity have been observable since the depression of the 1930's. The first has been the desire of individuals and business managers to keep their affairs in more liquid condition. This trend toward increased liquidity was reversed in 1946 and by 1957 many businesses had greatly reduced their liquidity ratios. The holding of a relatively larger quantity of liquid assets is at least partly a result of the development of an increased emphasis on the importance of security. The prevailing low interest rate is another factor to which monetary theorists, at least, are likely to give considerable weight. The prevailing low interest rates are considered an inadequate inducement to make holders of cash give up the advantages of liquidity. Both of these forces have shown a considerable weakening since 1950.

LIBERALIZED CENTRAL BANK POLICY. The second area has been money and banking legislation that has liberalized the restrictions placed on the transfer of various debt obligations into deposits and currency. The original legislation establishing the Federal Reserve System permitted only the transfer of commercial paper into Federal Reserve deposits. In addition sound

banking practice frowned on the indebtedness of member banks to the Federal Reserve banks which arose from rediscounting. Today the Federal Reserve banks stand ready to purchase or accept as collateral for loans (turn into Federal Reserve deposits or notes) nearly all types of assets held by a commercial bank. The liberalization has been terrific and the danger of banks possessing a shortage of funds to meet the demands of depositors has been greatly reduced.

Expansion of Federal Government Debt. The third area has been the great expansion of federal government debt. The debt of a government possessing the power to issue money must always possess a high degree of liquidity. Also under nearly all conditions it is more liquid than other types of debt. Therefore the relative expansion of government debt causes an expansion of the liquidity of the total debt structure.

Federal Government Credit Guarantee Activity. Finally the government, through establishing credit institutions to guarantee debt arising from such sources as agriculture and home finance, has expanded the liquidity of these debts. The liquidity has been expanded in the case of agriculture by substitution of the well-known and very sound credit of the agricultural credit institutions of the federal government for the credit of the individual farmer. In the case of home finance the credit liquidity was expanded through extension of government credit guarantees on approved loans.

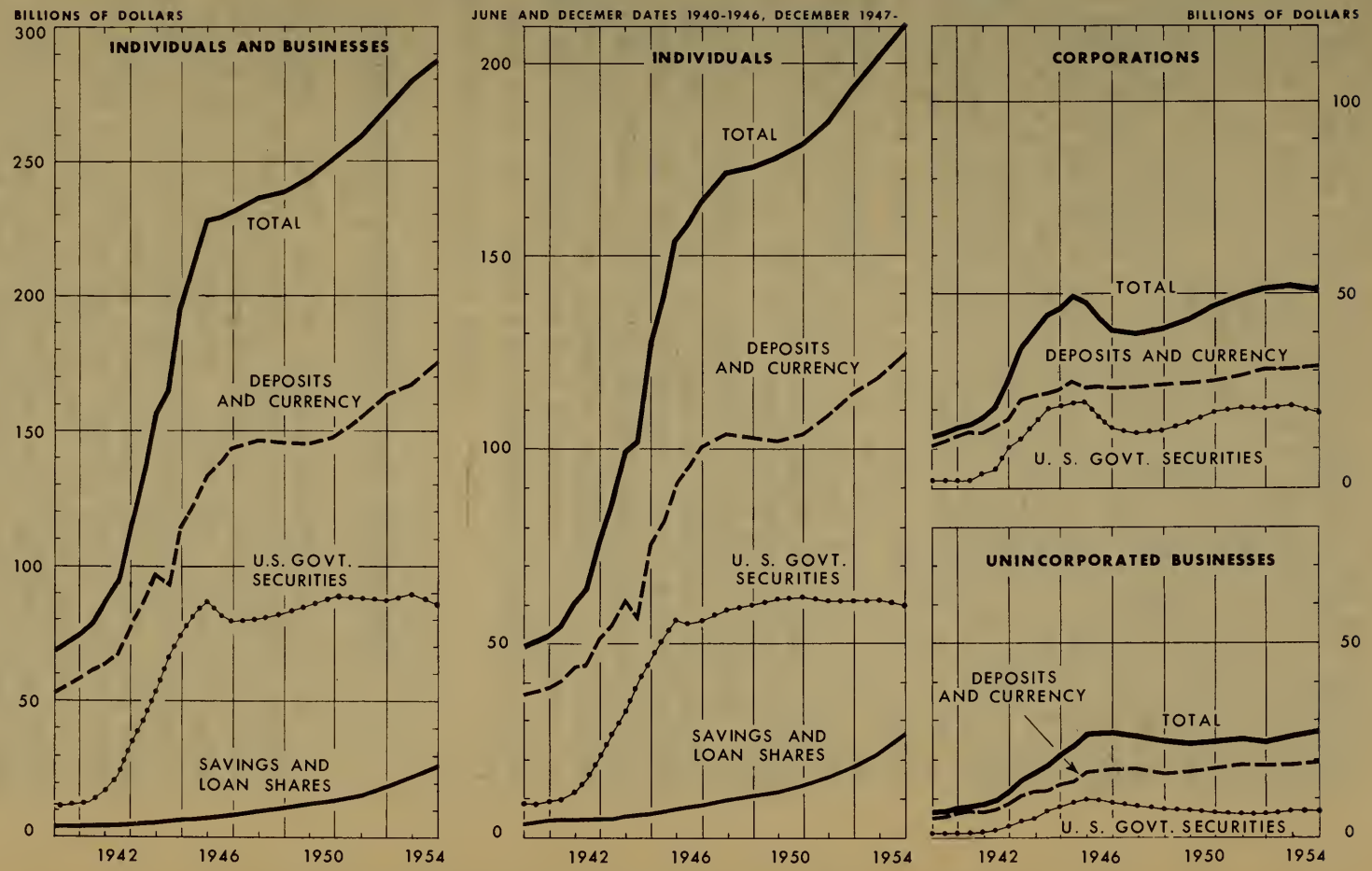
The very rapid expansion of liquidity of both individuals and businesses during 1942-1945, the World War II period, is strikingly shown by Chart 2. Since 1945, liquidity has continued to rise when businesses and individuals are combined; but when businesses are considered alone it is evident that strong forces have set in since 1946 tending to reduce or stabilize the quantity of liquid assets possessed. The constant quantity of liquid assets owned by businesses since 1945 has meant a reduction of business liquidity when measured as a per cent of business gross product. In fact, because business activity has doubled since 1945, business liquidity measured as a per cent of activity has been halved. This is not the case of individual liquidity as personal income and liquid assets have risen together during most of the post-World War II period. However, here also, income is tending to rise more rapidly than liquid assets.

**Effects of Liquidity Changes on Economic Analyses.** The tremendous expansion of liquidity has changed the emphasis of

# CHART 2

## LIQUID ASSET OWNERSHIP BY INDIVIDUALS AND BUSINESSES

FEDERAL RESERVE ESTIMATES




Source: *Federal Reserve Charts*, Historical Supplement, September, 1955, p. 12.

monetary theory and policy discussions. Current analyses place a reduced emphasis on the quantity of money and an increased emphasis on the different ways that existing liquid assets may be used. (See the discussions on pages 44–45.) The examination of the quantity of money has lost much of its usefulness because such a huge portion of the assets of the economy possess a liquidity that makes them money for purposes of analysis. Therefore, the important questions are related to the manner of use of the huge quantity of liquid assets existing. Some of these questions are: 1. Will the holders of assets with a high degree of moneyness wish to exchange them for goods or equity investments; that is, exchange demand deposits for goods and bonds for stocks? 2. What is the effect of changing currency and demand deposits into time deposits and federal government bonds? 3. Will the banks be content to hold low-earning government bonds or will they change these into Federal Reserve deposits and utilize these reserves to expand loans and discounts and therefore demand deposits? During the 1956-57 period commercial banks decreased their holdings of federal government securities by nearly 8 per cent.

The high degree of liquidity, in addition to changing the direction of monetary analysis, has had important observable effects on the monetary and banking system of the nation. Some of the more important effects are: (1) prevailing low rates of interest, (2) reduced fear of money crisis, (3) encouragement of production of investment and consumer goods, (4) reduced ratio of capital to the deposits of a bank. (See, also, pages 141–145.)

## CHANGES IN LIQUIDITY DESIRES

In the depression period of the 1930's, everyone considered it very wise to keep as large a portion of their assets in cash or in claims on a definite number of monetary units (deposits in banks and bonds, for example) as possible. Their reasoning was based on past experience which had shown that cash assets were the best because all others lost value with the price decline of the period. During the World War II period such thinking continued. This time it was partly due to the 1930 experience but it was also due to the unusually high prices and the scarcities of goods, which were considered to be a temporary war phenomenon. The net effect of these factors was a great willingness to hold liquid assets.

## Availability of Goods

In the postwar period more goods did become available, but prices did not fall; instead, they rose higher. This raised some doubts regarding the desirability of liquidity, which was expressed in the phrase, "hedge against inflation." Private debt of all types expanded, and the purchase of a government security began to look like an investment inferior to the purchase of common stock or investment in a new home. The desire for liquidity began to decline. The severe losses suffered by holders of common stocks and those in debt in the 1930's became more distant, and the business leaders who had gone through this period were replaced by younger men who knew of the crash of 1929 only as an historical episode.

## Rate of Capitalization

The effect has been to increase the rate of capitalization of the earnings of corporations. Common stocks that were selling at fifteen times earnings per share in 1949 were selling at eight times earnings and lower in 1957. The effect has also been to use savings to purchase a new car, to expand a factory, or to modernize a house rather than to increase a bank account or holdings of government securities. Rising prices reduce the desirability of liquidity.

## Holding of Government Debt

The very great liquidity preference which the depression and deflation of the 1930's instilled in the American people made it possible for the federal government to sell large quantities of its debt obligations to savers during World War II. Ordinary wage earners and corporation treasurers purchased government securities with their surplus funds because they thought government securities a good investment. When they did this they were saying in part that they believed prices would fall after the war; that is, they feared another depression. They were also saying that after the war there would be lots of things that they would want to buy and that it would be well for them to have cash on hand at that time. In other words, a considerable portion of the desire for liquidity was a temporary state of mind arising from the unusual conditions of the war and immediate prewar and postwar period.

As the unusual conditions of all-out war were dissipated and the fears of another depression faded, the liquidity preference of individuals and corporation treasurers became less. However, while it lasted, it was very useful to the Federal government. The federal government was able to sell securities at a much lower interest rate than it would have been able to do under conditions of a more normal liquidity preference. It was also able to borrow large sums of money through an expansion of bank credit and to do so with only minor inflationary pressures.

# QUESTIONS and ANSWERS

**Questions:**

1. What is a business cycle?
2. Differentiate between *exogenous* and *endogenous* explanations.
3. What are the four classifications of business cycles based on length of time?
4. What are the three legs of the business cycle stool?
5. What are the principal areas in which action may be taken to eliminate cyclical movements?
6. Discuss the meaning of the phrases "economic maturity" and "stagnation thesis" when applied to business cycle analysis.
7. What are the principal types of federal government marketable securities?
8. Briefly discuss the basic features of the savings bond program.
9. What is meant by the "purchasing power" bond? Why might it be used?
10. What have been the three traditional goals of the savings bond program?

**Answers:**

1. The relatively regular movement of business activity from a very high level toward a low level or trough at a relatively rapid rate and the slower upward movement of business activity to a level considerably higher than the trough and usually approximately the former high level. Prices usually move downward with the reduction of activity and upward with the expansion of activity. There is also a tendency for the level of employment to fall with business activity and to rise with its expansion.

2. Exogenous theories explain business cycles on the basis of occurrences outside the economic process. Occurrences frequently used are based on the weather, number of sun spots, population changes, and the like.

Endogenous theories explain business cycles on the basis of occurrences within the economic process. Occurrences frequently used are based on overcapitalization of profits, pursuit of profits, underconsumption, high profit retention, and the like.

3. The shortest is the seasonal cycle which ordinarily comprises a year, but a year may also include several seasonal movements. The second is the short cycle. It is three years in length and is often called the inventory cycle, or the Kitchen cycle. The third is the long cycle, or the Juglar cycle, which is nine to eleven years in length. The fourth is the secular, or the Kondratieff, cycle which is about forty years in length.

4. Modern business cycle analysis frequently revolves around three principal points or legs: (1) the relationship between the marginal efficiency of capital and the market rate of interest; (2) the relationship of investment to the expansion of consumption and growth of income (multiplier); and (3) the relationship of changes in the amount of consumption to the amount of investment (accelerator).

5. (1) By increasing or decreasing the investment total through expansion and contraction of autonomous investment, reference is largely made to government expenditures for public works and the like.

(2) By changing the distribution of income, and in this way creating changes in the level of demand for goods and also increasing the multiplier impact of investment, reference is largely made to the government's tax and welfare expenditure program.

(3) By changing the liquidity of the economy and liquidity desires, reference is largely made to government deficit finance and central bank policy.

6. "Economic maturity" refers to the reduced need for new investment as the economy becomes developed; as a result, it poses the problem of an excess of savings in developed countries that would tend to provide downward pressures on the level of economic activity.

The "stagnation thesis" is related to "economic maturity" as it is the descriptive term for the shortage of investment opportunities in a developed economy. These concepts became popular in the 1930's.

7. The short-term federal government marketable securities are: Bills which regularly run for 91 days but may run for as long as a year.

Certificates of investment which regularly mature in about a year.

Notes which mature in less than five years.

The long-term government marketable securities are bonds which may run for just slightly over five years and on occasion are issued to mature after as long as thirty-five years.

The sale and purchase price of all marketable government securities vary continuously on a free market.

8. The savings bonds are non-marketable securities; they have been offered by the federal government since 1935. The price at which the bond may be exchanged for dollars is fixed in the conditions stated on the security. Because of this feature, the investor avoids the risk of market change in dollar value. The E bond is by far the most popular of the savings bonds offered. It pays the highest rate of interest, and is offered in the smallest denomination—$25.

In addition, H, J, and K bonds possessing the non-marketable feature of the E bond but tailored to meet the requirements of other classes of investors are offered for sale by the Treasury through the Federal Reserve banks and many banking and investing outlets that also sell and cash E bonds.

The interest of the E bond accrues and becomes a part of the face value of the security. The interest of the H bond is payable semi-annually by check. Both E and H bonds may be purchased only by individuals and only for a total of $20,000 each. The J bond is a discount bond like the E bond, and the K is a par bond like the H. The interest rate of the J and K bonds is lower than that of the E and H bonds, but the J and K bonds can be purchased by another other than a bank receiving demand deposits and for a joint annual total of $200,000.

9. A purchasing power bond would include as a part of its terms of contract a provision that at maturity the owner would receive whatever number of monetary units were needed to provide him with a command over goods and services equal to

that possessed by the monetary units he surrendered to purchase the security.

This type of security might be used to encourage the purchase of securities following an experience of losses incurred from investments stated as a fixed number of monetary units because of a fall in the purchasing power of money.

10. (1) To reduce consumer expenditures and to decrease the portion of savings going into private investment.

(2) To make every person a direct owner of a portion of the government's debt.

(3) To increase the savings facilities available to small savers and to develop a counter-cyclical saving-spending program.

# Chapter 4
# COMMERCIAL BANKING

## DEVELOPMENT AND MANAGEMENT OF COMMERCIAL BANKS

### Development of Fractional Reserve Banking

THE GOLDSMITH PRINCIPLE. The earliest type of English bank (American banking developed from English and Scottish practice) was an institution for the safekeeping of gold and silver owned by private individuals. These banks provided a warehouse function, charged for the service, and issued warehouse receipts to persons owning the *specie* on deposit. It was convenient for the owners of gold to transfer their warehouse receipts when an expenditure was made rather than actually carrying the gold to the place of business of the creditor. This became important when added to the fact that the operators of these warehouses and goldsmiths, private bankers, and some chartered institutions, learned that only a small portion of the gold left for safekeeping was removed. It made possible the extension of rights to withdraw gold of a greater aggregate value than gold in storage—the expansion of the quantity of money.

BANK NOTES. The second stage was reached when these institutions paid their depositors to store their gold rather than charging them for the service. Also, the deposit became the property of the bank and the understanding between banker and depositor was that equivalent rather than the same funds would be returned to the depositor by the banker when the depositor desired them. This arrangement made it possible for the banker to lend money, that is, issue *bank notes* backed by *fractional reserves* of gold and silver. The banker obtained interest from the borrowers to whom the bank notes were issued which made it profitable for the banker to expand the amount of gold and silver on deposit to permit expansion of loans. The banker

encouraged deposits by paying interest on amounts deposited in his bank.

DEMAND DEPOSITS. The final development was when loans were extended in the form of bank *demand deposits* rather than bank notes. Demand deposits were promises to pay issued by the bank in the form of a bank account. The amounts in these accounts could be transferred by written orders, that is, *checks*. The importance of gold and silver left in banks decreased, and deposits were increased and decreased through the presentation of credit instruments. The modern commercial bank continues to perform the first function in its safe deposit department. The second function is performed when *bullion* or coins are accepted by a bank as deposits and these coins or bullion provide a reserve for expanded deposits. However, the third phase of the development of deposit banking dominates current commercial banking.

**Deposits by Origin.** Basically the deposits of a modern commercial bank originate in two ways: (1) the *primary deposit,* which arises when a depositor deposits a check upon another bank or when he presents currency for deposit (for the entire banking system, primary deposits arise only when currency is deposited); (2) the *derivative deposit,* which arises when a bank extends its credit. The portion of the total deposits of a single commercial bank which may be classified as primary are much greater than the derivative, because the typical individual, firm, or institution obtaining bank credit through the sale of an investment or a grant of a loan quickly withdraws the resulting deposit. He does this to make the payments for which the grant of credit was needed and obtained or to enjoy earnings from idle funds.

**Deposits by Withdrawal Right.** The two principal types of deposits by withdrawal right are (1) *demand* and (2) *time.* The total of demand deposits is over twice as great as time deposits. Only demand deposits can be drawn upon through use of a check. Demand deposits, as the name indicates, can always be drawn upon demand, but the right to withdraw time deposits may be withheld for a period of 30 days or more, if so stipulated in the bankbook or signed agreement. The conditions of withdrawal determine whether a deposit is classified as a demand or time deposit. A third type that is sometimes introduced and called *interbank* deposit actually is a type of ownership rather than type of deposit.

**Deposit by Ownership.** The deposits of commercial banks are owned by all the individuals, groups, and institutions that

make up the economy. Data are not available, and would not be particularly valuable, which show the quantity of deposits owned by the many different segments of the economy. The deposits of commercial banks by ownership are divided into just a few classifications: (1) interbank deposits; (2) federal government deposits; (3) state and political subdivision deposits; (4) deposits of individuals, partnerships, and corporations. In 1958 the deposits possessed by individuals, partnerships, and corporations were much greater than all the other subdivisions of deposits based upon ownership.

## Control of Banking Activities

RIGHT TO DO BUSINESS. Both commercial and savings banks are chartered by the states. The federal government charters only commercial banks. The regulations governing the operation of state commercial and savings banks vary from state to state but a large degree of uniformity is provided through membership in the Federal Deposit Insurance Corporation. All National banks possess charters from the federal government. All such banks are primarily commercial, but since 1903 they have been permitted to accept saving deposits also. All National banks must meet the requirements of the National Banking Act which are administered by the Comptroller of the Currency. In addition, all National banks must be members of the Federal Reserve System and subscribers to Federal Deposit Insurance Corporation insurance. State banks are only voluntary members of these agencies.

In 1957 there were about 14,000 commercial banks, about 5,000 of which were National banks and 9,000 were state banks. These banks have about 6,500 branches, making a total of 20,500 commercial banking offices in the United States.

STOCKHOLDERS AND DIRECTORS. Except for the very few private banks, all commercial banks are operated as corporations, and the source of all authority and control is the shareholders. These shareholders elect a board of directors who delegate authority to the number of officers considered necessary.

EXECUTIVE OFFICERS. Each common stockholder may cast one vote for each share of stock for each director. Or, he may accumulate his votes and cast all for one director. The directors are elected annually and must possess certain qualifications related to stock ownership, residence, and the like. It has always been held that extension of loans is a power which

the directors cannot delegate. However, that power can be delegated in part by authorizing the officers to extend a *"line of credit."* Regulations prevent directors from receiving from the bank favors which are not also available to other borrowers or depositors.

Prior to 1933 all National bank stock was common stock, but since 1933 National banks have been permitted to issue preferred stock as well. Also the banking legislation of 1933 and 1935 abolished double liability, and by 1937, all National banks were operating under the provisions of this legislation.

The *president* is the principal executive officer of the bank, and his authority is frequently very great due to expressed or tacit delegation of powers by the directors. Frequently the president is also the chairman of the board of directors; this is less likely if the bank is a large institution. The *cashier* conducts all money operations of the bank. The cashier's duties are gradually becoming more routine, and the president is assuming active direction of functions formerly controlled by the cashier. Another officer often provided is the *comptroller* who handles personnel, auditing, planning, and the like. Despite changes arising from a more active president and the introduction of the comptroller, the cashier remains the focal officer of the commercial bank.

DEPARTMENTS OF A COMMERCIAL BANK. The activities of a bank are frequently divided into departments, the number of which varies with the size of the bank. All department heads and clerks are subordinates of the cashier. Two departments, or clerks possessed by all banks are the paying teller and the receiving teller. The paying teller pays bank funds out over the counter and cares for the funds in the vault. The *receiving teller* accepts deposits over the counter and by mail. The *check desk* is the department responsible for the general bookkeeping activity of the bank. The *note teller* is responsible for collecting amounts due on notes and often for a large portion of the bank's correspondence.

The *discount department* is responsible for the work involved in making loans and discounts. If the bank is small, all assets are acquired by this department; as the bank becomes larger, this department is frequently subdivided into a discount department, loan department, credit department, bond department, and customers' securities department. It is this department which prepares the paper for discount with the Federal Reserve bank.

The typical large and medium-sized commercial bank has

a *mortgage department* and an *installment credit department*. This is a new development in commercial banking which expanded considerably during the 1930's and in 1958 was still the most rapidly growing portion of commercial bank lending. In addition, most commercial banks have a *savings* and *time deposit department* and a *safe deposit department*. The modern commercial bank is truly a department store of credit and safety provision.

## COMMERCIAL BANK OPERATIONS IN THE UNITED STATES

**Development Prior to 1930's.** From 1791 to the 1930's, American commercial banking legislation had been built on the real-bills doctrine, that is, that credit should be extended as short-term loans for commercial purposes, also called *self-liquidating short-term credit*. This was the ideal of commercial banking policy, which it was believed would prevent the money supply from increasing more than trade, provide it with the elasticity required, and in addition, largely prevent bank failures. However, the goal was more honored in its breach than in its accomplishment. This was very likely desirable for it is now well established that the benefits attributed to the real-bills doctrine did not actually arise.

From the establishment of the nation to the 1930's (with the possible exception of the brief period of the First and Second Banks of the United States) commercial banking is correctly characterized as a large number of small, independent, and frequently inefficient banking establishments. (This characterization is still partly true.) Prior to 1933 hundreds to thousands of banks were forced into bankruptcy during each period of economic crisis. Although these banks were theoretically operated as commercial banks, which at this time meant that they extended only self-liquidating short-term credit, actually they frequently extended credit that possessed only the outward appearance of being short-term, that is, the length of time was short but renewal of the credit was assumed. Also, the credit definitely was not self-liquidating.

STATE BANKS. Prior to the Civil War, a large number of banks possessed the right to issue notes as well as to create secondary deposits. These banks (again with the exception of the First and Second Banks of the United States) were state banks. They possessed many privileges including the right of

note issue and deposit creation. In nearly all instances, the activities of these banks were inadequately regulated. Provision for the control of banks by the federal government was not made until 1863 with the establishment of National banks. (Also see the discussions on pages 21, 35.)

NATIONAL BANKS. The federal National banking legislation did not substitute National banks for state banks. Actually, the National bank legislation merely added an additional group of individual banking units and a new type of regulation to the already confused and overexpanded banking industry. The National banks were, however, larger than most state banks, and the inspections to enforce regulations were more rigidly conducted. The end result was an improvement in the banking conditions of the nation. The greatest immediate benefit developed from the Congressional provision establishing National bank notes and taxing out of existence state bank notes. This eliminated the paper money confusion and provided paper money that was readily recognized and which circulated at par throughout the nation. (Also see the discussions on pages 20–22.)

FEDERAL RESERVE SYSTEM. The establishment of the Federal Reserve System in 1913 provided an additional nationwide regulatory agency. The Federal Reserve System was given the power to inspect all member banks, that is, all National banks and most of the larger state banks. Duplication of inspection resulted from this arrangement, with National banks inspected by the Comptroller of the Currency and also by the Federal Reserve examiners (and later by the Federal Deposit Insurance Corporation); this has been gradually eliminated. The three great contributions of the Federal Reserve System to the improvement of the money, credit, and banking system of the nation have been: (1) it gave checks on nearly all banks *par value* in all parts of the country and (2) it removed the danger of a credit crisis arising from reserve shortages. Later (3) its policies also largely eliminated the danger of bank illiquidity.

Federal Reserve coverage, powers, and inspections proved inadequate to establish a banking system free from either numerous bank failures or depositor losses. Bank failures continued to be so frequent that when they decreased slightly in 1932, it brought forth the quip from Will Rogers "that the country was running out of banks."

CONCLUDING REMARKS. In the 1920's and 1930's the portion of (1) the paper money consisting of National bank

notes decreased, (2) the number of commercial banks decreased, (3) the average size of commercial banks expanded, and (4) the portion of the total commercial banking business conducted under federal regulations increased.

The development of the commercial banking system up to the 1930's included an expanding amount of supervision which proved to be surprisingly ineffective. The assets held by the commercial banks of this period were largely loans extended to private economic units interested in producing, transporting, processing, storing, and selling goods and/or services. These loans were extended to individuals and firms by the commercial banks' responsible officers, after these officers had become convinced, through examining the proposed economic venture and becoming acquainted with the entrepreneur, that the loan would expand the profit of the bank. All too frequently the value of the asset became inadequate to support the loan.

During the period between the Civil War and the 1930's the right of note issue was strictly controlled but demand deposit creation remained relatively free. The degree of federal control exercised over demand deposits was obtained through the establishment of the Federal Reserve System and its acquisition of central banking powers in the 1920's. More than likely the federal government's power to control both note issue and demand deposit creation were weakened by the war finance measures of World War II.

## Bank Legislation of 1933 and 1935

FEDERAL BANKING ACT OF 1933. The provisions of the 1933 legislation were sweeping, the main purpose being provision of conditions that would restore public confidence in the nation's banking system. The Act provided for the Federal Deposit Insurance Corporation, which was later expanded in 1935. Mutual savings and industrial banks became eligible for Federal Reserve membership. The Board of Governors was given power to restrict member bank credit for speculative purposes. A Federal Reserve Open Market Committee was set up to determine open-market policy. New National banks in towns of less than 3,000 population were to have a capitalization of at least $50,000; also, the branch banking powers of National banks were extended. Interest payments on member bank demand deposits were prohibited, and the Board of Governors was given the power to fix the interest rates on time deposits. Member banks were prohibited from lending to their own executive

officers, and investment affiliates were ordered divorced from commercial banks.

Federal Banking Act of 1935. The 1933 legislation was partly concerned with the Federal Reserve System, but the major concern was with the safety of the nation's banking system. The 1935 legislation was nearly entirely related to extending and redefining the scope and powers of the Federal Reserve System. The Board was given the power of doubling the basic reserve requirements, which were established as the minimum reserve requirements. It also was given power to review and determine rediscount rates more often than every two weeks, and to determine the types of paper ineligible for advances to member banks. The Board was given a majority in the Federal Open Market Committee. The title of the head of each Federal Reserve bank was changed from Governor to President. National bank real-estate loan powers were expanded.

**After 1935.** The 1930's were a period of great economic turmoil which was reflected in banking and monetary legislation of the period. The monetary legislation was based on old and disproved assumptions but the banking legislation was generally enlightened.

Effect of Postwar Development. Up to the time of this writing, the legislative development aimed at increasing the safety of bank deposits has been successful, but the changes aimed at increasing the power of the Federal Reserve System have been somewhat neutralized by special legislation and pressure groups tending always to keep abundant and cheap credit available to meet housing, agriculture, and government needs.

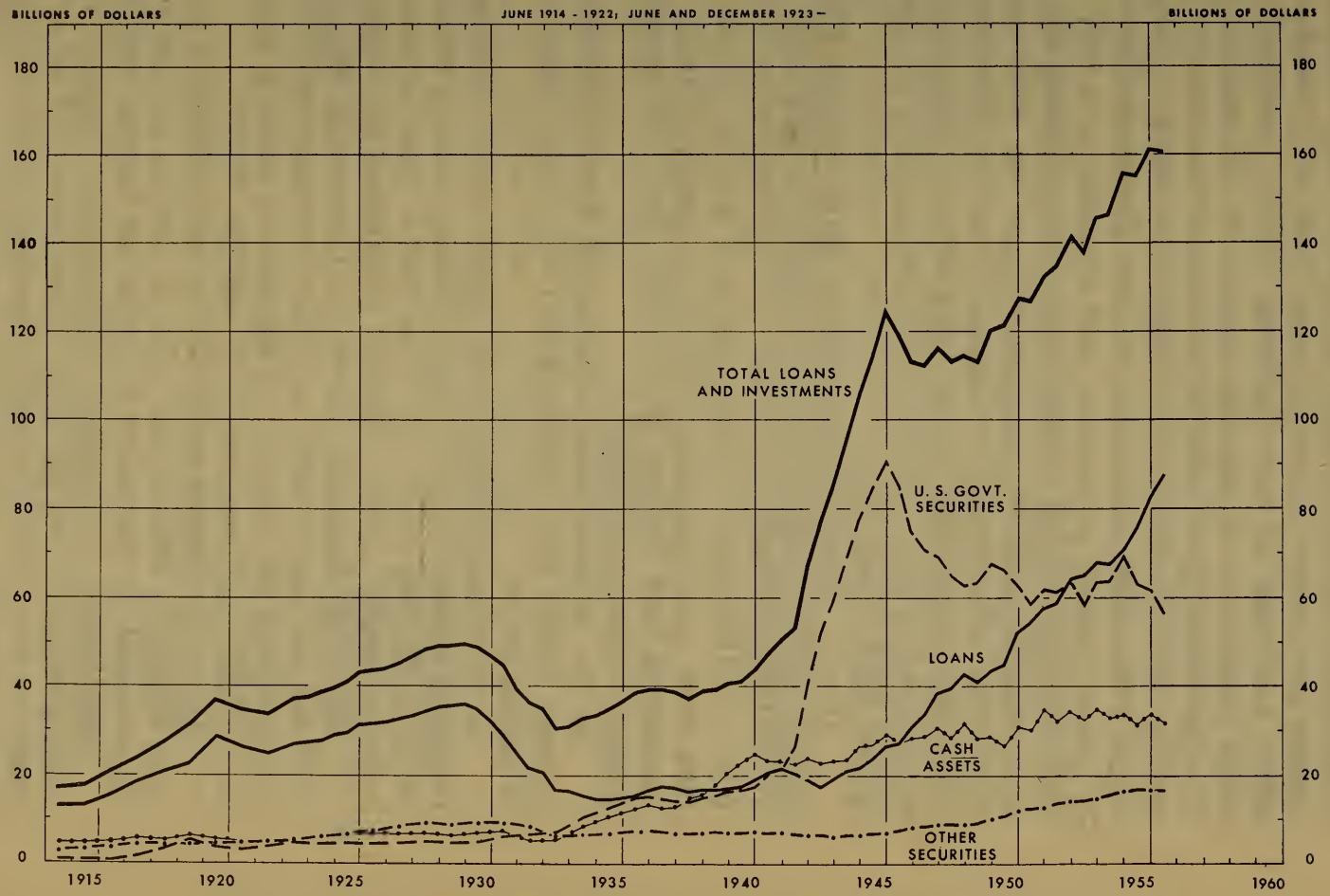
These have combined to reduce substantially the Federal Reserve restrictions on the creation of deposits through the discount rate, and control over quantity of reserves through reserve requirements and open-market operations. Actually, Federal Reserve powers, in the sense of being able and willing to use them are perhaps less now than in the 1920's or 1930's; particularly in controlling inflation.

Change of Commercial Bank Assets. The assets held by commercial banks underwent a great change during the 1930's. The shift proceeded with accelerated speed during the World War II period. Basically the change was from business loans and discounts to government bonds and private consumer and real estate loans.

During the 1930's, the federal government rapidly expanded its credit activites aimed at expanding economic activity.

# CHART 3

## PRINCIPAL ASSETS OF ALL COMMERCIAL BANKS




Source: *Federal Reserve Charts,* Historical Supplement, September, 1956, p. 12.

It was considered desirable policy that a large portion of the securities arising from spending and lending activities be purchased by commercial banks. This had not been the case with federal government borrowing during World War I when a great effort was made to have the bonds held by individuals. By 1934, the value of securities owned by commercial banks (largely federal government debt) exceeded the value of loans, and by 1943 the income from investments held by commercial banks went ahead of income from loans. During the World War II period, federal government debt expanded at a very rapid rate, and again a large portion of the securities arising from this debt became assets of commercial banks. In 1948 earnings from loans went ahead of investments, but the quantity of investments remained the greater. By 1957 both the earnings and the quantity of loans of all commercial banks were considerably greater than investments.

ACTUAL TREND OF COMMERCIAL BANK ASSETS. Chart 3 summarizes the trend of principal commercial bank assets from 1914 through 1955, and shows the rapid reduction of loans from the 1929 pre-World War II peak and the gradual and then more rapid expansion of federal security holdings. The commercial bank holdings of securities other than government remained relatively constant.

In the postwar period commercial bank loans were increasing rapidly until the spring of 1949, when a short period of decline set in.

In 1950 loans started to rise rapidly and the increase has continued without the total again declining even as much as it did in 1949. The steady rise of the total of other securities has been due largely to state and local government borrowing.

**Effect on Economic Power of Commercial Banks.** In 1957 the commercial banks are much less important in the determination of the manner and direction of national economic life than they had been from 1791 until the 1930's.

This is due largely to (1) the influence of federal government legislation affecting the terms of credit in particular lending areas and (2) the growth of specialized financial institutions.

INFLUENCE OF FEDERAL GOVERNMENT POLICY. Commercial banks in their purchase of investments do not actively determine use of credit but merely purchase the best instruments (after consideration of earnings and security) that are available. The over one-half of commercial bank credit extended as loans is also to an important extent determined by the activities of individuals other than the managers of commercial banks. This is

particularly the case of real estate loans and loans for purchasing and carrying securities, which together amount to nearly one-third of total commercial bank loans. The quantity and type of real estate loans is greatly affected by federal government programs that set conditions for the guarantee of this type of loan. The loans to carry securities are affected by the margin requirements established by the Federal Reserve Board. Even the extension of loans to consumers has on occasion been partially determined by government action (see regulation W).

**Specialized Spending Institutions.** The growing importance of specialized lending institutions, both private and government, has markedly reduced the credit rationing role (determining who can and who cannot borrow to expand his activities) of the commercial banks. The total of the assets of legal-reserve life insurance companies is alone over 50 per cent as great as commercial bank assets and growing rapidly.

The partial monopoly of commercial banks over financial resources in the small and medium sized community is gone,

TABLE 3

CLASSIFICATION OF CREDIT INSTRUMENTS

| FUNCTION | FORM | INSTRUMENT | |
|---|---|---|---|
| I. Credit Money | Promises to Pay | 1. Gov. Credit Money | |
| | | 2. Bank Credit Money | |
| II. Commercial Credit Instruments | Promises to Pay | 1. Open-book Account | |
| | | 2. Promissory Note | |
| | | 3. Collateral Note | |
| | | 4. Com. Ltr. of Credit | |
| | Orders to Pay | 1. Checks | Personal Check |
| | | | Cashier's Check |
| | | | Certified Check |
| | | | Traveler's Check |
| | | | Traveler's Lt. of Credit |
| | | | Bank Draft |
| | | | Money Order |
| | | 2. Commercial Drafts | Time Drafts: Domestic, Foreign |
| | | | Sight Drafts: Domestic, Foreign |
| | | 3. Acceptances | Trade Acceptance |
| | | | Banker's Accept. |
| III. Investment Credit Instruments | Promises to Pay | 1. Bonds | |
| | | 2. Notes | |
| | Evidences of ownership | 1. Stock certificates | |
| | | 2. Stock rights | |

the savings and loan association, the production credit association or the insurance lender are among the many financial institutions that are just around the corner.

**Credit Instruments.** Banking activity is largely concerned directly and indirectly with the creation and handling of credit instruments; sometimes the word debt is used. Credit instruments are the merchandise stock traded by banks. Notes, bonds, and deposits are all credit instruments.

Credit instruments are usually divided into two main groups: (1) promises to pay and (2) orders to pay. This division is based on form. Another division frequently made is threefold and based upon function: (1) credit money, (2) commercial credit instruments, and (3) investment credit instruments.

The different common types of credit instruments classified in the above groups are summarized in Table 3.

The usefulness of credit instruments is expanded through their possession of *negotiability.* The minimum requirements for credit instruments to be negotiable are that they (1) be in writing and signed by the maker or drawer; (2) contain an unconditional promise or order to pay a certain sum of money; (3) be payable on demand or at a fixed or determinable future time; (4) be payable to order or bearer; and (5) when addressed to a drawee, name him with reasonable certainty.

**Clearing and Collection of Checks.** The clearing of checks is the procedure worked out to get this type of credit instrument back to the banks upon whom they are drawn so that the amount may be deducted from the writer's (drawer's) account. In performing this function clearing also determines the amounts different banks owe other banks. If the total value of the checks written on Bank A is greater than the total value of checks Bank A accepted from other banks to cash or as deposits, then Bank A will lose reserves.

LOCAL CLEARING. Checks drawn on local banks and used in the same trading area are usually cleared through an institution called a *clearinghouse.* The clearinghouse gathers together all the checks drawn on members of the clearinghouse that have been accepted by these banks. The total value of all checks written on one bank which were accepted by the other banks is deducted from the total of the checks accepted by the first bank. If the result is a negative number the bank has experienced an adverse clearing and must make funds available to meet the deficit. If the figure is positive the bank has experienced a favorable clearing and will receive funds. A bank

loses reserves in an adverse clearing and gains them in a favorable clearing. (See pages 110, 120–126.)

INTRADISTRICT CLEARING. Clearings that involve checks which are not drawn on and accepted for deposit by banks belonging to the same local clearinghouse are cleared through the Federal Reserve banks. The same functions are performed by these clearings as are performed by local clearings.

Table 4 indicates the procedure of clearing a check drawn on a bank and accepted for deposit by another bank belonging to the same Federal Reserve district.

INTERDISTRICT CLEARING. The process of clearing a check that is used in two Federal Reserve districts is fundamentally the same. The difference is that the clearing includes a second Federal Reserve bank as well as the Interdistrict Settlement Fund in Washington. The steps involved are briefly outlined in Table 5.

**Loans and Discounts.** A loan is a credit grant on which interest is paid at the maturity of the loan or at stated intervals.

A discount is a credit grant on which the interest is paid at the time of original negotiation. A discount is usually granted for a shorter time than a loan.

COMMERCIAL LOANS. There are three principal types of loans extended by commercial banks to business firms: (1) working-capital loans which provide funds to buy raw materials and to pay wages; (2) term loans which provide funds to purchase or construct additional facilities or to acquire other enterprises; (3) capital loans, which are used for the same purposes as term loans, but provision is made for collateral, and the loan is repaid in installments.

REAL ESTATE LOANS. These are long-term loans to finance the purchase of real property usually utilized as housing. See the discussions on pages 158, 164–166.

LOANS TO BROKERS AND DEALERS IN SECURITIES. These are short-term loans made to investment banking houses, brokerage firms, and individuals obtaining investment credit. These loans are always made with the securities purchased providing the collateral. See the discussions on pages 153 and 159.

CONSUMPTION LOANS, AGRICULTURAL LOANS, OVERDRAFTS, AND OTHER LOANS. Consumption loans are for less than two years, and the funds obtained are used to finance purchase of durable consumer goods. See the discussions on pages 149–153. Agricultural loans are short term and usually extended to finance purchase of feeder stock, purchase of equipment, or expenditures related to planting and harvesting of crops. In this

## Table 4

### CLEARING OF CHECKS USED OUTSIDE OF A TRADING AREA BUT WITHIN ONE FEDERAL RESERVE DISTRICT

1. X gives Y a check drawn on the First National Bank of Mankato. Y deposits the check in the Commerce Bank of Fargo. Y receives a credit to his bank account of the amount of the check. (+)

2. The Commerce Bank sends the check to the Federal Reserve bank of Minneapolis. The Commerce Bank (within 3 days) receives a credit to its Federal Reserve account of the amount of the check. (+)

3. The Minneapolis Federal Reserve bank sends check to the First National Bank of Mankato, and charges the account of the Mankato bank by the amount of the check. (−)

4. The First National Bank of Mankato charges the account of X by the amount of the check. (−)

## Table 5

### CLEARING OF CHECKS USED OUTSIDE OF A TRADING AREA AND INVOLVING DIFFERENT FEDERAL RESERVE DISTRICTS

1. X gives Y a check drawn on the First National Bank of Mankato. Y deposits the check in the Michigan National Bank of Lansing. Y receives a credit to his bank account of the amount of the check. (+)

2. Michigan National sends the check to the Federal Reserve bank of Chicago and receives (within 3 days) a credit to its Federal Reserve account of the amount of the check. (+)

3. Chicago Federal Reserve bank sends check to Minneapolis Federal Reserve bank and makes totals available to Interdistrict Settlement Fund.

(+) (−)

4. Interdistrict Settlement Fund credits the account of the Chicago Federal Reserve bank and charges the account of the Minneapolis Federal Reserve bank. (−)

5. The Minneapolis Federal Reserve bank charges the account of the First National Bank and sends in X's check. (−)

6. The First National Bank charges the account of X by the amount of the check. (−)

area commercial banks must meet stiff competition from federal-sponsored cooperative lending institutions. See the discussion on pages 164, 172. Overdrafts arise when customers overdraw their accounts. This results in short-term loans. They are much less important today than during the 1920's. Other loans represent a miscellaneous group of loans. Loans to other banks are the most important element.

## Legal Limitations on Bank Lending Power

1. A National bank is not permitted to lend more than 10 per cent of its capital to any one borrower. However, the exceptions to the rule that have been gradually adopted are so numerous that the 10 per cent limitation is largely meaningless. Its effect today is limited to the provision of a point beyond which prudent bankers realize they should not go.

2. National bank lending on "conventional" real estate loans is also limited. If the conditions of the loan provide that 40 per cent of it will be repaid within 10 years or complete repayment within 20 years a National bank may lend up to 66 per cent of the appraised value of the property. If these conditions are not met only a loan of 50 per cent of the appraised value for 5 years may be granted. FHA and VA loans or real estate, residential, or farm building loans maturing within six months are excluded from these restrictions.

3. All banks must obey the margin requirements established by the Federal Reserve Board under the conditions of the Securities Exchange Act. These requirements are applicable to loans to finance brokers, dealers, and their customers, who purchase securities on margin.

4. A number of minor limitations on bank lending are also in effect. For example, a member bank can loan only $2,500 to an officer; a National bank cannot make a loan secured by the stock of the bank; member bank lending to affiliates is restricted to 20 per cent of capital and surplus.

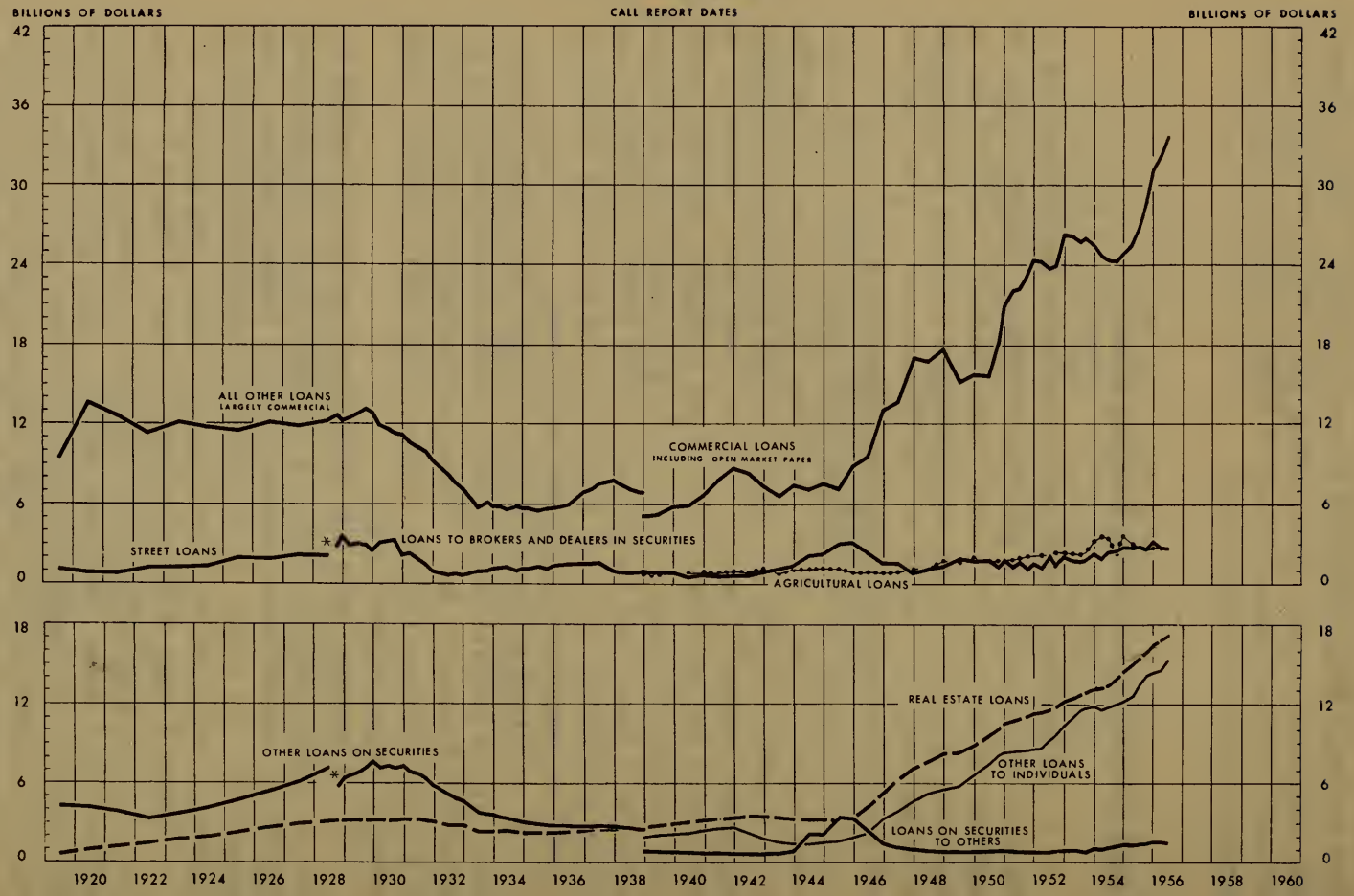
**Actual Totals of Member Bank Loans.** Chart 4 is a summary of the data gathered by the Federal Reserve System of member bank loans. Data are available since 1939 which show the quantity of commercial bank, brokers and dealers, agricultural, commercial real estate, consumer, and security loans.

Expansion of Consumer and Real Estate Loans. The chart clearly points out the very rapid rise of commercial, real estate, and consumer (other loans to individuals) loans during

# CHART 4

## LOANS OF MEMBER BANKS

### ALL MEMBER BANKS




Source: *Federal Reserve Charts,* Historical Supplement, September, 1956, p. 24.* CHANGE IN SERIES, SEE PAGE 116.

the postwar period. The current expansion of real estate lending by commercial banks is not the dangerous type of lending it was in the 1920's. The change in the desirability of real estate loans has arisen from federal government guarantee activity through the Federal Housing Administration and the Veterans' Administration.

The rise of consumer lending is another of many indications of the great expansion of the relative importance of durable consumer good purchases in the total of investment expenditure. Notice that "loans to brokers and dealers" and "loans on securities to others" did not show a rapid rise despite the stock market boom of 1955-57.

**The Bank Statement.** A study of bank statements reveals three important categories of information: (1) bank statements tell how banks perform their functions in the operation of the economic system; (2) analyzed over a period of time, they reveal the trend of business and banking activity; and (3) they indicate the probable safety with which funds can be deposited with the bank.

COMMERCIAL BANKS. The assets possessed by a bank are the security of the depositors. The speed with which these assets can be transferred into cash determines asset liquidity. Federal government obligations and cash deposits with Federal Reserve and other banks are the most liquid types of assets. If the total of these assets is a large portion of the deposits, funds deposited are relatively safer than if the portion were smaller. Deposits are also safer if the total of the capital accounts (capital, surplus, and undivided profits) is a large portion of the total deposits. From 1940 to 1947 the safety of deposits generally expanded through an increase in the liquidity of assets and declined through a decrease in the ratio of the capital account to the deposits.

Analysis of the asset side of current bank statements reveals that banks are becoming more active in extending mortgage loans, installment (consumer) credit and particularly of commercial loans and that they are reducing their holdings of federal government securities while slowly increasing their holdings of the other security (largely state and local government) total. This trend has caused a deterioration in the quality of commercial bank assets and an increase of earnings. Despite these trends the ratio of capital to deposits is still only 8.5 per cent; up 1.1 percentage points since 1947.

See Table 6 for a Simplified Commercial Bank Statement with a brief description of individual items.

In addition to the bank statements of the individual commercial banks, summary statements of the assets, liabilities, and capital accounts of all commercial banks are prepared regularly and published by the Federal Reserve System. These consolidated statements summarize the trend throughout the nation, which is valuable information in itself, and they also provide a basis for evaluating the statement of any particular commercial bank.

FEDERAL RESERVE BANKS. Finally the Federal Reserve System regularly makes available a financial statement that reflects the changes in Federal Reserve assets, liabilities, and capital accounts. These statements have recently revealed a great preponderance of federal government obligations and a relatively small quantity of business and commercial obligations in Federal Reserve portfolios. Nearly all the earnings of the Federal Reserve System arise from receipt of interest on federal government obligations.

Careful examination of the Federal Reserve System statement shows, among other things, the quantity of (1) *member bank reserves*, the quantity of (2) *Federal Reserve notes*, and the quantity of (3) *gold certificates*. These items show how Federal Reserve credit has been extended and the limits to further expansion. These items should always be considered important guideposts in estimating existing and possible credit expansion.

GOVERNMENT CONTROL AND DEPOSIT INSURANCE. Government has felt required to regulate banking during most of the period of its development. Prior to the 20th century this control was aimed largely at limiting and providing guarantees of redemption of notes issued by banks. During the past fifty years controls have been more closely concerned with the quantity of deposits and the protection of depositor interests than with note issuance.

Borrowers from banks have benefited less from government aid and supervision than have depositors. Legislation does exist limiting interest rates that can be charged; also, government lending agencies, particularly in agriculture, have been established, but the popular appeal of this type of legislation has been considerably less.

The creation of the FDIC in 1933 was the last government legislation to protect depositors. The establishment of the FDIC is an admission that the regulation of banking cannot protect the monetary value of deposits. The FDIC, of course, does not

protect the depositor from loss arising from reduced purchasing power of the dollar.

MAINTAINING ECONOMIC STABILITY. The public interest today is largely focused on (1) changes of the purchasing power of money and (2) the efficiency of the operation of the economic system, rather than the guaranteed liquidity of deposits. This need to maintain satisfactory business conditions has been recognized by the Board of Governors, who have stated this to be the chief postwar problem of government banking policy. Actually, banking policy alone is not sufficiently potent to provide satisfactory business conditions. This fact was recognized by the Board of Governors as long ago as 1938. The aim of satisfactory business conditions is only a practical government goal as a joint project of the Federal Reserve System and Congress. It is now well recognized that the most desirable level of economic activity cannot be maintained by simply changing rediscount rates and entering into open-market operations. (See pages 92–94.)

REGULATORY AGENCIES. Bank regulation was largely carried on by the individual states until a series of events concentrated regulation and public banking policy in the federal government. The formal acts leading to this change were the National Banking Act of 1863, the Federal Reserve Act of 1913, and the Federal Deposit Insurance Act of 1933. In addition, legislation of 1933 and 1935 strengthening the power over commercial banks of the Board of Governors, and the increased holdings by the commercial banks of federal debt obligations in the 1930's and 1940's, worked in the same direction. Today banks are regulated by three federal government agencies (Comptroller of the Currency, Federal Reserve System, and Federal Deposit Insurance Corporation) and 48 different state regulative agencies. All this regulation has improved the nation's banking system, but it is still far from ideal.

PURPOSE OF REGULATION. Bank examination is to prevent and expose abuses and to provide information of use to government and business policymakers. The examination of a bank not only involves gathering the facts but also appraising the information obtained. Appraising economic activity is very difficult. Appraisals during periods of boom and prosperity are likely to be too optimistic, and appraisals during depressed conditions too pessimistic. During prosperous times bank examiners tend to overrate bank assets, while during a depressed period they tend to underrate them.

The 1938 ruling established four categories to be used to

## TABLE 6 A SIMPLIFIED COMMERCIAL

| | | |
|---|---|---|
| | *Assets* | |
| Cash on hand to carry on day to day business. If a large cash drain developed the deposits in other banks would be reduced and short term securities sold or used as collateral for an advance. Non-earning asset. | Cash in vault | $ 120,000 |
| Deposits in other banks. Non-earning asset. | Due from other banks | 250,000 |
| A non-earning asset also. Required by law of commercial banks members of the Federal Reserve system. Requirement is less on country banks and time deposits. | Reserve Deposit at Federal Reserve Bank | 900,000 |
| Principal earning asset. Discounts on present loans on which interest is prepaid. | Loans and discounts | 2,000,000 |
| These are obligations issued by the United States government or fully guaranteed obligations of its agencies. Book value stands at par at maturity or first call date. | United States Government obligations | 815,000 |
| These are mostly state and local government securities. The interest income from these securities is exempt from the Federal income tax. | Other securities | 450,000 |
| Equal to 3 per cent of capital and surplus. Stock purchased prior to 1942 is exempt from the Federal income tax. | Federal Reserve Bank Stocks | 15,000 |
| Space occupied by bank and value of equipment. Part of this may be income producing property because the bank does not occupy the entire building. | Building, furniture, and fixtures | 500,000 |
| Mainly property taken over in foreclosure of mortgages or chattel loans. | Other real estate | 600,000 |
| | | $5,650,000 |

# BANK STATEMENT

| *Liabilities* | | |
|---|---|---|
| Demand deposits | $4,000,000 | Non-interest bearing since 1933. |
| Time deposits | 450,000 | Federal legislation sets maximum rate, currently 3 per cent. |
| Reserve for taxes | 100,000 | Income taxes not yet due but for which the bank is liable. |
| Reserve for losses | 120,000 | This is the amount the management is permitted by law to set aside for this risk. |
| Liability on acceptances | 80,000 | The bank's liability on payments it has guaranteed. |
| Reserve for contingencies | 240,000 | This item is really a part of capital and reserves. |
| Undivided profits | 160,000 | Profits that have been set aside to be paid out to stockholders as dividends. |
| Capital | 200,000 | The par value of shares issued by the bank's board of directors. |
| Surplus | 300,000 | Capital funds beyond par value of stock. |
| | $5,650,000 | |

evaluate bank loans and investments for examination purposes. Loans are given the highest rating if payment seems assured, and the lowest if they are to be counted as losses and charged off. The intermediate classifications represent intermediate degrees of risk, and call for corresponding action on the part of the bank officers. Securities are placed in the four classifications largely on the basis of the ratings given in *Poor's* and *Moody's* security rating manuals. Those given the highest investment rating are placed in category I and the others from II through IV depending upon the degree of risk and speculation. Securities in category I are given book value with the proviso that any premium paid be properly amortized. Until the summer of 1949, securities in category II were carried at average market price for the 18 months immediately before examination; since 1949 they have been valued in the same manner as categories III and IV. Securities in categories III and IV are carried at the current price.

The 1949 change has reduced the aid formerly extended by the 1938 ruling to banks in meeting another panic situation similar to that of the early 1930's. Many banks at that time were forced into bankruptcy merely because an examination disclosed (during a period of greatly depressed prices) that the current market value of the assets held was less than that of the liabilities (largely deposits).

# QUESTIONS and ANSWERS

**Questions:**

1. What is a commercial bank?
   See discussions on pages 47–51.
2. Describe primary and secondary (derivative) deposit expansion.
3. What are principal ways in which the reserves of a bank attempting to expand more rapidly than other banks will be depleted?
4. What is the possibility of commercial bank expansion of deposits and loans through the deposit of $15 million in gold in one commercial bank with 15 per cent reserve requirement and all banks increasing loans at the same rate?
   See discussions on pages 120–126.
5. What is the difference between a grant of acceptance credit and an ordinary bank loan?
6. Why are letters of credit used?
7. Why may a ratio of 20 to 1 between deposits and capital of commercial banks in 1950's be as safe as a ratio of 10 to 1 during the 1920's?
   See discussions on pages 53–56.
8. Why is the establishment of a definite ratio between commercial bank capital and risk assets an undesirable rule to be used for commercial bank regulation?
9. Define surplus and undivided profits in a commercial bank financial statement.
10. What are two principal ways that commercial banks provide funds to be used in the securities market?
11. Why isn't the trade acceptance as widely used in the United States as in Europe?
    What credit device is used in its place in the United States?
12. How has the federal government encouraged housing loans by commercial banks?
    See the discussions on pages 158, 165.

13. What are the principal reasons for granting unsecured loans?
14. What is the 10-per-cent rule?
15. What advantages of incorporation have caused most banking institutions to organize as corporations?
16. What is the real-bills or the commercial-loan doctrine? See discussions on page 51.
17. What are the justifications for the principal charges collected by banks in their activities related to checks?
18. What are the principal functions of clearinghouses?
19. How is the FDIC managed?
20. What are the principal sources of FDIC revenues?
21. What is the chief function of the FDIC?
22. What are some of the chief factors that should be considered when analyzing insurance of commercial bank deposits?
23. What are the principal reasons for banks keeping deposits in other banks (correspondent banks)?
24. Why do changes in the amount of Federal Reserve deposits have a greater effect on the economy than similar-sized changes of commercial bank deposits? See the discussions on pages 123–126.
25. What are the principal reasons for changing member bank reserve requirements?
26. What are the two principal risks that banks assume when they purchase securities?
27. What are the principal broad categories of federal government securities?
28. What are the more important reasons for banks joining the Federal Reserve System, and for banks refusing to join? See the discussions on page 77.

**Answers:**

1. See discussions on pages 41–51.

2. Primary deposits of an individual bank expand from the deposits of cash or checks drawn on other banks. Primary deposits of the banking system expand only through the deposit of cash. Secondary deposits expand from the granting of a loan or the purchase of an investment.

Primary deposits provide the basis for additional reserves and therefore for further expansion of loans and deposits; secondary deposits do not.

3. The loans extended are spent and deposited in other banks;

that is, unfavorable clearinghouse balances arise. Expanded legal reserves are required. Also there is an expansion of hand-to-hand currency and the resulting drain of cash.

4.

| *Number of Banks* | *Additional deposits received (100%)* | *Additional loans made (85%)* | *Additional reserves retained (15%)* |
|---|---|---|---|
| 1st bank | $15,000,000 | $12,750,000 | $2,250,000 |
| 2nd bank | 12,750,000 | 10,837,500 | 1,912,500 |
| 3rd bank | 10,837,500 | 9,211,875 | 1,625,625 |
| 4th bank | 9,211,875 | 7,830,094 | 1,381,781 |
| 5th bank | 7,830,094 | 6,655,580 | 1,174,514 |
| 6th bank | 6,655,580 | 5,657,243 | 998,337 |
| 7th bank | 5,657,243 | 4,808,657 | 848,586 |
| 8th bank | 4,808,657 | 4,087,358 | 721,299 |
| 9th bank | 4,087,358 | 3,474,254 | 613,104 |
| 10th bank | 3,474,254 | 2,953,116 | 521,138 |
| All other banks | 19,687,439 | 16,734,323 | 2,953,116 |

| | | | | | |
|---|---|---|---|---|---|
| Total Deposit Expansion | $100,000,000 | Total Deposit Expansion | $85,000,000 | Total Reserves Used | $15,000,000 |

Source: *Federal Reserve Bulletin,* February 1940, p. 100.

5. In granting an acceptance, banks do not lend funds; rather they lend their credit standing which makes possible the sale of customer drafts as bankers' acceptances. These bankers' acceptances are in turn purchased by other investors who desire a very safe short-term financial investment. This does not involve lending funds unless the bank purchases its own acceptances. If this is done the basic difference between granting an acceptance credit and bank loan disappears.

6. They permit a seller from a distant place to sell for cash, and an unknown buyer to buy on credit. The seller receives a promise to pay from a well-known bank, if the conditions of the letter of credit are met, and this permits him to obtain cash from his local bank upon meeting these terms. The buyer need not pay until he receives documents designating *or* certifying that the goods described in the letter of credit have been properly shipped or until he has actually received the goods.

7. The assets of banks can be much more readily converted into cash today than was true in the 1920's. Today the Federal

Reserve System stands ready to extend its credit (Federal Reserve notes and deposits) on the receipt of nearly every type of asset possessed by a commercial bank. In addition, federal government bonds continue to represent a large portion of commercial bank assets.

8. The rule would place a great premium on conservative banking and would encourage banks to carry cash and government securities rather than assets representing expansion of economic activity into new productive fields. Also, assets that would be considered risk assets vary greatly in quality. For example, loans guaranteed by federal agencies would possess a very low risk factor and other loans would possess an indeterminate risk.

9. These are two capital accounts in addition to the bank ownership contribution capital account which is represented by the value of capital stock. The size of these two accounts is dependent upon the profitableness of the bank's operations, willingness of the directors to pay out earnings as dividends, and the manner in which the original ownership contribution was divided between the surplus and capital stock accounts. The surplus is the difference between the book assets of a bank and its liabilities plus the other capital accounts.

10. Loans to brokers to permit them to carry stocks and bonds purchased by their customers for which full payment has not been made. Loans to security dealers to permit them to hold securities that they have obtained and purchased but which they have not as yet sold to investors.

11. The different development in Europe and the United States is due (1) to the relatively large portion of European trade that is of an international character where the use of a trade or bank acceptance is very nearly necessary, and (2) to extensive use of branch banking which makes it easier for the bank of the seller to also do business with the purchaser. In the United States its place has been taken by the open book account.

12. The Federal Housing Administration (FHA) and the Veterans Administration insure approved housing loans extended by commercial banks and others. This has expanded the desirability of these loans on the part of bank lenders because the risk has been reduced and on the part of the borrower because the

interest rate has been reduced and the time for repayment lengthened.

13. To avoid complications when borrowers have business dealings with more than one bank; to facilitate lending when the credit of the borrower is sufficiently high to justify such a loan; to meet competition offered by other lenders.

14. Originally, it meant that a bank could not lend to one borrower or purchase the securities of one firm in excess of 10 per cent of unimpaired capital and surplus, but it has since been greatly modified by the granting of numerous exceptions.

15. The government favors this type of organization because it facilitates regulation.

Bankers favor this type of organization because of the traditional advantages of the incorporation of business activity.

Customers favor this type of organization because it makes possible more and better banking facilities.

16. The real-bills doctrine recommends that commercial bank credit be extended only to finance goods in the processes of production or transportation, or in storage in preparation for immediate fabrication or sale. In addition, it provides that commereial bank credit extended be immediately withdrawn (loans and discounts extended repaid) when the goods are disposed of by the firm receiving the grant of credit. This doctrine in practice restricts bank loans to what are called *self-liquidating commercial loans.*

17. Exchange charges by nonpar banks are justified by the cost involved in making funds available for payment and in the case of their own checks, by the cost involved in maintaining idle balances in correspondent banks. Collection charges are justified in that they meet the cost of collection. Service charges are based on the cost of providing checking-account services such as the number of checks written, the number of items deposited, and the checks cashed on other banks.

18. Clearinghouses provide facilities for debiting and crediting the checks written on local banks and accepted for deposit by other local banks. They also provide acceptable methods for settling adverse balances. In addition, they act as a better business organization representing commercial banks; in this function, they decide what holidays and hours will be observed, and establish uniform charges and payment schedules.

19. It is managed by a board of directors consisting of the Comptroller of the Currency and two other members appointed for six years by the President. One of the special Presidential appointees serves as chairman. There are 12 district offices throughout the nation, each supervised by an examiner.

20. The 1/24 of 1 per cent assessment of total deposits of commercial banks utilizing FDIC protection, and the interest on the federal government bonds purchased with revenues received.

21. The chief FDIC function is to inspect banks and to advise bank management in order to prevent bank failures. The secondary function is to make arrangements after a bank failure to prevent all losses on deposits below $10,000.

22. The portion of total deposits insured that the insuring agency should carry as reserves.

The power which the insuring agency should have over policies of insured banks and the voluntary nature of the association.

The type and size of deposits insured and the method of charging for insurance protection.

The basic question of the insurability of bank deposits arising from the tendency of all or many banks to fail at one time.

23. These balances are (1) required reserves of state banks not members of the Federal Reserve System; (2) useful as an exchange and clearing fund for checks and other credit instruments of the bank utilized in metropolitan areas; (3) used to credit interest and dividends received by correspondent banks on the securities that are owned by rural banks.

24. Reduction or expansion of Federal Reserve deposits changes the amount of member bank reserves. These reserves are the backing for commercial bank deposits equal to a number of times their value (see pages 120–126). Therefore the change of the quantity of Federal Reserve deposits requires or makes possible a much greater change in commercial bank deposits.

Another factor is the difference in the fundamental principles of Federal Reserve operations and commercial bank operations. The Federal Reserve is not interested in maximizing profits, and it will therefore withdraw from the money market funds received through a reduction of its holdings of securities, and suffer the resulting loss of income. For example, retirement of federal government bonds held by the Federal

Reserve System with tax surpluses of the Treasury causes a much greater credit contraction than retirement of bonds held by individuals or commercial banks.

25. To restrict or increase the possibilities for the expansion of commercial bank credit. To increase and decrease the quantity of federal securities held by commercial banks. To increase and decrease commercial bank profits.

26. A *money* risk which refers to the loss of a long-term securities market value when the rate of interest rises above that existing when the security was purchased. The *credit* risk which refers to the possibility of experiencing a loss because interest and principal payments are not made.

27. Nonmarketable public issues: Series E and other issues of savings bonds, and Treasury tax and savings notes. Marketable public issues: Treasury bonds, notes, and certificates (Treasury bonds are divided into bank-eligible and bank-noneligible categories). Special issues: bonds issued to the Old-Age and Survivors Insurance Fund, the Unemployment Compensation Fund, National Service Life Insurance Fund, and the like. Noninterest-bearing debt: excess profits tax refund bonds, U. S. savings stamps, thrift stamps, and the like. Fully guaranteed interest-bearing securities; bonds issued by federal government corporations that have been granted the power to utilize the credit of the federal government in this manner.

28. Banks join the Federal Reserve System because it makes available to them clearing, collection, and credit facilities. Nevertheless, a nonmember bank can enjoy collection and credit facilities indirectly through its correspondent bank and can directly enjoy the clearing privileges. Banks also join the system to have the opportunity to invest in the stock of the Federal Reserve banks and receive a 6 per cent return on this safe investment.

The greatest deterrent to membership is the comparatively high reserve requirements set by the Federal Reserve Board. This reduces earnings because funds used as reserves do not earn a return and because it limits possible expansion of earning assets. Membership requires par clearance, which prevents the levy of a charge on checks drawn against a bank for the payment of cash at some distant point. This is a considerable source of income to some rural banks, and they have been unwilling to relinquish it.

# Chapter 5
# THE FEDERAL RESERVE SYSTEM

## THE ORGANIZATION OF THE FEDERAL RESERVE SYSTEM

**Organization.** The Federal Reserve System was established in 1913 to provide the services of a central bank. At this time these services were considered largely to be protection of the nation's gold stock and meeting the liquidity needs of business (a flexible money system). Instead of establishing one bank as a central bank as had the countries of Europe, it was decided to establish twelve regional banks. A Board of Governors selected by the President with the approval of the Senate was provided to coordinate the activities of the twelve district banks and to make most basic policy decisions.

FEDERAL RESERVE BANKS. Federal Reserve banks are in the following cities (the number indicates the number of the district): (1) Boston, (2) New York, (3) Philadelphia, (4) Cleveland, (5) Richmond, (6) Atlanta, (7) Chicago, (8) St. Louis, (9) Minneapolis, (10) Kansas City, (11) Dallas, (12) San Francisco. In addition to the twelve banks, the system includes 24 branch banks.

Over 50 per cent of the assets of the twelve banks are possessed by the New York, Chicago, and San Francisco banks. The New York bank is by far the largest of the twelve and largely dominated the Federal Reserve System until 1930. The Minneapolis bank is the smallest and possesses assets only about one-twelfth as great as that of the New York bank. The banking legislation of 1935 expanded the powers of the Board of Governors so that the Board is able to dominate the activities of the twelve district banks. This reduced the independence of each Federal Reserve bank and substantially diminished the power of the New York bank.

MEMBER BANKS. The member banks of the Federal Re-

serve System are the commercial banks of each district that have met minimum requirements, requested admission, and have been admitted. All commercial banks that are also National banks must be member banks. The member banks include about 49 per cent of the nation's commercial banks; these banks hold about 86 per cent of all commercial bank deposits.

Recently, state banks have hesitated to join the system because (1) the reserve ratios required by the Federal Reserve Board have been higher than those of most state banking commissions, (2) the requirement of par clearing reduces earnings, (3) the restrictions on interlocking directorates, (4) the high capital requirements if a member bank is to establish out-of-town branches, (5) the restrictions on loans to executive officers, reports required, and the like, (6) the advantages of membership have been reduced through the pressure of nonmember banks upon Congress to force the Federal Reserve System to be very liberal in making its services available to all banks, members and nonmembers. With certain limitations, nonmember banks may use the Federal Reserve clearing system, borrow from Federal Reserve banks, and use other facilities. On the other hand the most important material advantage of membership is direct access to the discount and loan facilities of the Federal Reserve System.

The funds for the establishment of the Federal Reserve System were obtained through a required stock subscription by all member banks. Each member bank is required to pay into its Federal Reserve bank an amount equal to 3 per cent of its own paid-up capital and surplus. The Federal Reserve banks are owned wholly by their member banks but are not controlled by these member banks. The stock held by member banks is similar to nonvoting stock of a corporation. In effect, all voting stock of the Federal Reserve banks is held by the federal government through its control over the Board of Governors.

## Administration and Control

BOARD OF GOVERNORS. The federal government controls the actions of the Federal Reserve System through the Board of Governors. The Board is composed of 7 members, each appointed by the President with the approval of the Senate for a term of 14 years. They are ineligible for reappointment if a full term has been served. The President designates one of the Board members as chairman. The present chairman is

William McC. Martin, Jr., a former assistant secretary of the treasury and former president of the New York Stock Exchange (1958).

Open-Market Committee. The most powerful instrument of credit control possessed by the Federal Reserve System is that of purchase and sale of government obligations, acceptances, and credit instruments in the open market. This activity directly controls the reserves and hence the lending activity of member banks.

The group name for these activities is open-market operations. This activity was formerly conducted individually by each district bank, with the New York bank dominating the policy. Since 1935 the open-market activities of the Federal Reserve System have been conducted by the Federal Open-Market Committee, which is composed of the seven members of the Board of Governors and five members selected by the twelve Reserve banks. The Reserve bank representation is determined by relative size. Only the New York bank has a representative of its own on the committee. The open-market policy is now officially definitely in the hands of the Board, however, the influence of the Treasury operating through the New York bank has recently been considerable.

Federal Advisory Council. The final central governing body of the Federal Reserve System is the Federal Advisory Council. One member of the council is selected by the board of directors of each bank. It acts as an advisory group and its power depends upon the prestige of the individual members.

Bank Boards of Directors and Executive Officers. Each of the twelve Federal Reserve banks has a board of directors of nine, composed of three classes of three each. Each class is differently appointed and has varying responsibilities. Class A directors are appointed by the member banks to represent them. Each of three size groupings of member banks appoints one director. Class B directors are appointed in the same manner but they represent important industries of the district rather than banking interests. Class C directors are appointed by the Board of Governors. The chairman also acts as Federal Reserve Agent, and in this capacity is the official representative of the Board of Governors in carrying out its functions. Another acts as deputy chairman.

The chief executive officer of each bank is the president. He is appointed by the directors of the bank and must be approved by the Board of Governors. The first vice president is appointed in the same way. Other executive officers are ap-

pointed by the directors, and the Board has only the power of removal.

The Federal Reserve banks possess little independent power today. For purposes of understanding the manner in which the system functions, each bank should be considered as a branch of the central bank which is the Board of Governors, with some independence of action.

### Routine Work

The principal routine jobs or chores of the Federal Reserve System are: (1) banking supervision, (2) clearing and collection of checks, and (3) fiscal-agency functions.

BANK SUPERVISION AND CLEARING. Bank supervision has become relatively less important and perhaps should be entirely relinquished to the FDIC. Clearing and collection of checks by the Federal Reserve banks has provided collections at par and has speeded up the process from frequently over two weeks to approximately three days.

FISCAL ACTIVITY. The fiscal functions of the Federal Reserve System have expanded with the growth of the economic activity of the federal government. The Federal Reserve System holds the principal checking accounts of the federal Treasury and holds, sells, pays interest due, and redeems federal government obligations. In addition, the Federal Reserve System, along with the Treasury, is responsible for maintaining the value of federal debt obligations and generally preserving an orderly market for government securities.

## FEDERAL RESERVE CREDIT CONTROL ACTIVITIES

Credit control powers of the Federal Reserve System are the traditional powers possessed by the central banks of the world. Congress gave these powers with the intent that they would permit the Federal Reserve System to control credit and in that manner, prices. In addition it was believed that economic booms and depressions could be avoided if price fluctuations were largely eliminated. From 1921 through 1929, the Federal Reserve System appeared to be successful in maintaining price levels by utilizing these central-bank powers. The powers proved inadequate in preventing price rises during both

wars and inadequate for preventing price declines during the 1930's.

The desire of the Treasury, from the spring of 1946 to the spring of 1951, to maintain prices of long-term government bonds, reduced the effectiveness of Federal Reserve credit-control powers and therefore the influence of Federal Reserve policy on price levels. In addition, the past failures of Federal Reserve credit-control activities have reduced public confidence in their effectiveness; this has, in turn, reduced their actual effectiveness.

**Discount Rate.** The discount rate is the rate of interest or schedule of interest rates charged by a Federal Reserve bank if it extends a loan or an advance to a member bank. The Federal Reserve bank is a banker's bank, and the discount rate is the rate of interest it charges when member banks exchange their credit for Federal Reserve credit. At the time the Federal Reserve System was established it was believed that an increase of this rate would decrease the expansion of credit and therefore the expansion of money, and that a decrease of the rate would increase expansion of credit and therefore expansion of money. An increase in the rate of discount was supposed to tighten the money market and decrease credit expansion; a decrease was thought to have the opposite effect. When the power to change the discount rate was given the Federal Reserve System it was considered very important. However, it never proved as valuable a weapon of credit control in the United States as it had apparently been in Great Britain when utilized by the Bank of England.

CAUSES OF INEFFECTIVENESS. The inability of the discount rate to control the level of economic activity and price levels should have ben expected. Despite this its ineffectiveness surprised the leaders in American money and banking circles. The more important reasons for the inadequacy of the discount rate as a tool to control the economy are:

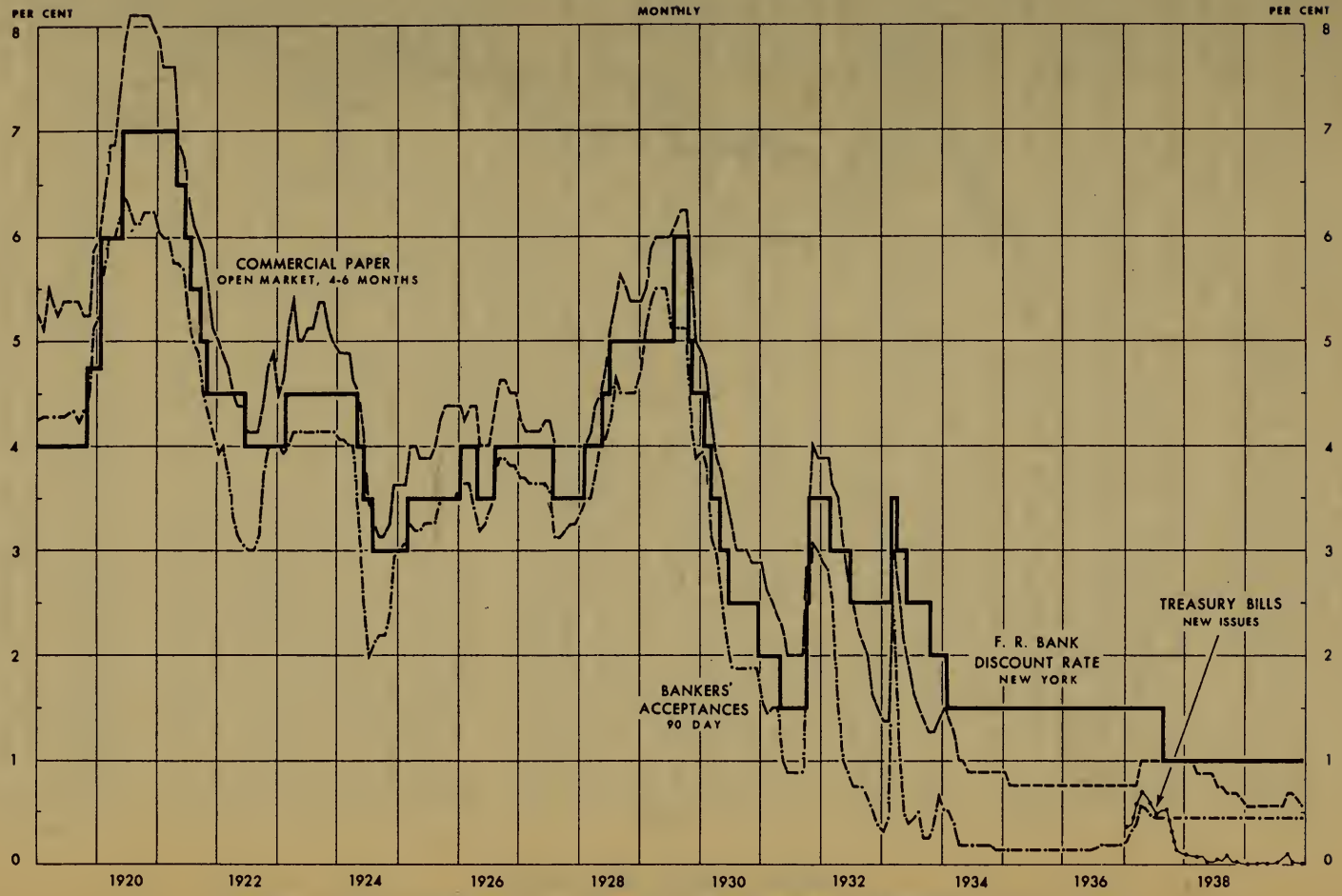
1. The use of fractional reserves necessitates a very great increase in the rate of discount to bring about a rather modest increase in the cost of borrowed funds.

2. A rise in the cost of borrowed funds is likely to reduce loans for legitimate commercial activities rather than speculative borrowing. The increase in cost occasioned by a rise in interest rates is likely to mean little to the speculator, but may cause postponement of legitimate construction.

3. The rate of discount has little effect unless the banks are forced to borrow to acquire sufficient reserves to support an

# CHART 5-A

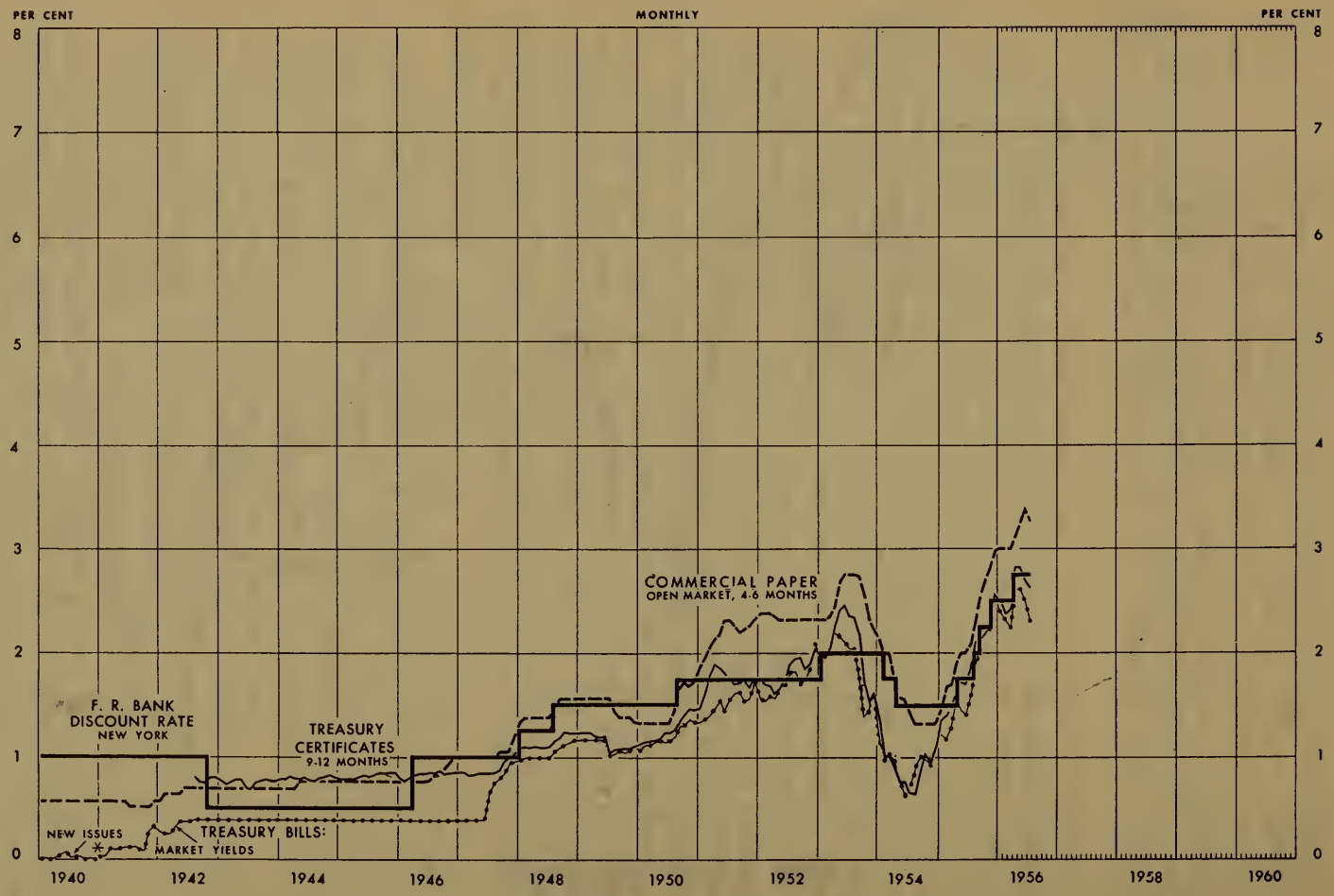
## SHORT-TERM INTEREST RATES




Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 40.

# CHART 5-B

## SHORT-TERM INTEREST RATES




Source: *Federal Reserve Charts,* Historical Supplement, September, 1955, p. 42.

expanding quantity of deposits. Under these conditions the cost cannot continue for long because of the Federal Reserve rule against continued borrowing.

4. A reduction of the rate of discount is effective only if the supply and demand conditions in the money market permit a reduction of interest rates.

**Discount Rate Policy.** Charts 5A and 5B give the Federal Reserve rate of discount from 1919 to 1955. These charts show a number of characteristics that aid in understanding the Federal Reserve System's use of its power to set the rate of discount. The most apparent general characteristic is that the rate was (1) changed much more frequently and was (2) much higher prior to 1934 than it has been since that time.

Rate Changes (1919-1922). The highest discount rate (7 per cent) was established late in the spring of 1920 and was continued until the spring of 1921. This increase from the 4¾ per cent rate, which had existed in 1919 when World War I federal government financing was completed, was made to reduce the great post-war inflation the country was experiencing. The increase was not made until the inflationary bubble was approaching the breaking point. The sharp increase of 2¼ per cent within a few months during the winter and spring of 1920 appeared to make the break more violent than necessary, and certainly was greater than needed to stop the inflationary spiral. The rate was also maintained at this high level after the threat of inflation had obviously disappeared.

Reductions of the discount rate were commenced in the early summer of 1921 and continued in ½ per cent steps until June 1922, when the rate was down to the 4 per cent level.

Rate Changes (1922-1928). From June 1922 until the spring of 1928 the discount rate fluctuated between 3 and 4½ per cent. Changes in the rate of discount were not great during this six-year period, but they were frequent. In the spring of 1928 the discount rate was started on a course toward higher levels, and reached a peak of 6 per cent in the late summer of 1929.

The rate of discount was not the only economic indicator that remained relatively constant during this period. Generally the period 1922 through 1928 was one of economic stability on a high level. Very nearly every index of economic activity of the period shows a high level of activity with only minor fluctuations. For example, the wholesale price index of the Bureau of Labor Statistics was extremely steady; this was also true of the Federal Reserve index of physical volume of manufacturing

production, the Bureau of Labor Statistics reports of factory employment and payrolls, and the Federal Reserve index of dollar volume of department store sales. These and a number of other indexes indicated that economic activity was steady at what was considered a desirable level. Three exceptions were the indexes of residential construction, food prices, and stock prices. The F. W. Dodge Corporation index of residential construction fell steadily from the early months of 1928, the wholesale prices of foods showed weaknesses in the early portion of the period, and stock prices indicated boom conditions.

In the 1920's the nation experienced two periods, 1921 and 1924, of rather sharp recession, and a minor drop in 1927. In all three periods the discount rate was reduced. Also, a quick return of prosperity was enjoyed, but it is doubtful if the return of prosperity was due to the reduction of the discount rate; however, at the time this appeared to be the case. In addition, the Federal Reserve System expanded its outstanding credit by increasing its open-market purchases, that is, its holdings of federal government bonds. The banking authorities can be pardoned, after these successful experiences, for believing that the tools of monetary policy which they possessed (the discount rate and later open-market operations) were adequate to prevent a severe depression.

Discount Rate (1928-1931). In October 1929, a few months after the discount rate had been increased to the high of 6 per cent, the stock market crashed and with it the prosperity of the economy. The discount rate had been gradually increased to this rate from the low rate of 3½ per cent established during the slight recession of 1927. The higher discount rates did not stop the investment boom and it appears to have run itself out when the index of 420 stocks prepared by the Standard Statistics Company reached a new high of about 220 with the base year 1926 equalling 100. Immediately after the stock market crash and the development of depression conditions, the Federal Reserve System lowered the discount rate 1 per cent, shortly later by another ½ per cent, and continued to lower it until a new low of 1½ per cent was reached in the summer of 1931. This time, however, prosperous conditions failed to return. The public gradually learned that prosperity was *not* just around the corner and that the Federal Reserve monetary tools were inadequate to restore prosperous economic conditions.

Discount Rate (1931-1933). The low discount rate and the generally easy money policy of the Federal Reserve Sys-

tem were abandoned in the autumn of 1931; however, prosperity had not returned to the nation. The discount rate was increased to meet the requirements of the *international gold standard*. The use of the discount rate for this purpose was unique in the history of the Federal Reserve System, but had been the principal purpose of the device in Great Britain during the 19th century. (It was in Great Britain that this tool of monetary policy was first developed and where its use reached the highest degree of perfection.)

In 1931 Great Britain went off the gold standard. This caused an uncertainty of the ability of the United States to remain on the gold standard. Also, the low discount policy of the Federal Reserve Board had reduced interest rates in the United States below those prevailing in other money centers. Both of these had the effect of draining gold out of the United States.

The uncertainty made persons with dollar credits desirious of converting these into gold while still possible, and the low rate of interest induced foreign depositors to shift their accounts to higher interest areas. The gold shortage was intensified by an expansion of the need for gold to be used as reserves for Federal Reserve notes and deposits and gold hoarding by United States citizens. The additional gold reserves were needed because the depression had seriously reduced the quantity of commercial paper available to back Federal Reserve notes. Under these circumstances the Federal Reserve Board acted in the traditional central-bank manner to prevent loss of gold and serious credit complications; it raised the rate of discount.

By the autumn of 1931 the discount rate was back up to 3½ per cent. The effect of this action is doubtful, but it did prevent the withdrawal of several large accounts to the credit of foreign central banks. It might have been better if the Federal Reserve Board had not attempted to keep the United States on the gold standard. For in less than two years the United States was to leave the gold standard under conditions that were perhaps less favorable than those existing in 1931. Also, in 1932 the Glass-Steagall Act was passed to permit the Federal Reserve System to use federal government bonds as a backing for its notes as a substitute for commercial paper. If this had been done earlier, it probably would have made unnecessary the high discount rate in the midst of a depression.

Discount Rate (1933-1958). The discount rate was gradually reduced in 1933, and early in 1934 it was back to 1½ per cent. From 1934 until the 1957-58 period, the discount

rate has been permitted to remain constant for long periods of time and when it has been changed the change has been very small. The discount rate from 1934 through most of 1937 remained at 1½ per cent. Late in the summer of 1937 it was reduced to 1 per cent as a half-hearted aid to the economy during this period of sharp decline in economic activity. Nobody considered the change particularly important, and this general opinion was undoubtedly right.

The discount rate of 1 per cent was continued unchanged until late in 1942 when it was reduced to ½ of 1 per cent (technically the 1 per cent rate was maintained and the lower rate was applicable only to discounted federal government securities). The rate was continued throughout the war. In the spring of 1946 the discount rate was increased to 1 per cent where it remained until January 1948, when it was increased by ¼ of 1 per cent and then later that same year it was increased by another ¼ of 1 per cent. The discount rate of the New York Federal Reserve Bank in the summer of 1957 was 3½ per cent, which was higher than it has been at any time since the summer of 1931 and an increase of over 100 per cent since 1954. The rate was down to 1¾ per cent in April, 1958.

The discount rate has been used more actively to control the credit expansion of 1955-1957 than at any time since the 1920's. The increased rate was made feasible by the abandonment of the program to support federal government bonds in 1951 and the increased political support given monetary policy since 1954.

**Open-Market Policy.** The Federal Reserve System can extend its credit by purchasing securities in the open market; the securities purchased are largely federal government obligations. It can contract its credit by selling securities in the open market. The expansion of Federal Reserve credit increases the reserves of commercial banks, and its contraction decreases these reserves. Federal Reserve credit contraction activities through the open market are limited by the number of securities the Federal Reserve System owns. Its expansion limit is the ability of the gold certificates held to meet the reserve requirements set by Congress as backing for Federal Reserve credit.

DEVELOPMENT AND PURPOSE. Open-market operations as a method of credit control were not contemplated when the Federal Reserve System was established. The tool developed through trial and error. From 1923 until 1942 it was considered the most important power possessed by the Federal Reserve Board to control the quantity of credit, but its usefulness in

controlling credit during a boom was greatly reduced when the Federal Reserve System and the Treasury assumed the obligation of preventing long-term federal government obligations from falling below par between 1942 and 1951.

Historically, the Federal Reserve System has entered into open-market operations to accomplish four purposes: (1) to obtain earning assets, (2) to control the quantity of credit, (3) to stabilize the general values of securities, and (4) to maintain a pattern of interest rates on federal government obligations. The first and third reasons are now of secondary importance.

**Purchases and Sales (1920-1923).** The Federal Reserve use of open-market sales and purchases to control the economy did not develop as a well-understood policy until the middle of the 1920's. In 1920 and 1921, open-market sales were not made to reduce the inflationary pressure. The obvious reason for the lack of action, other than the failure to understand the effect, was the relatively small quantity of Federal Reserve holdings of federal government bonds; the total was around $0.75 billion. In 1922 the Federal Reserve System entered into open-market purchases which helped to ease credit conditions, but this effect was not the reason for the action.

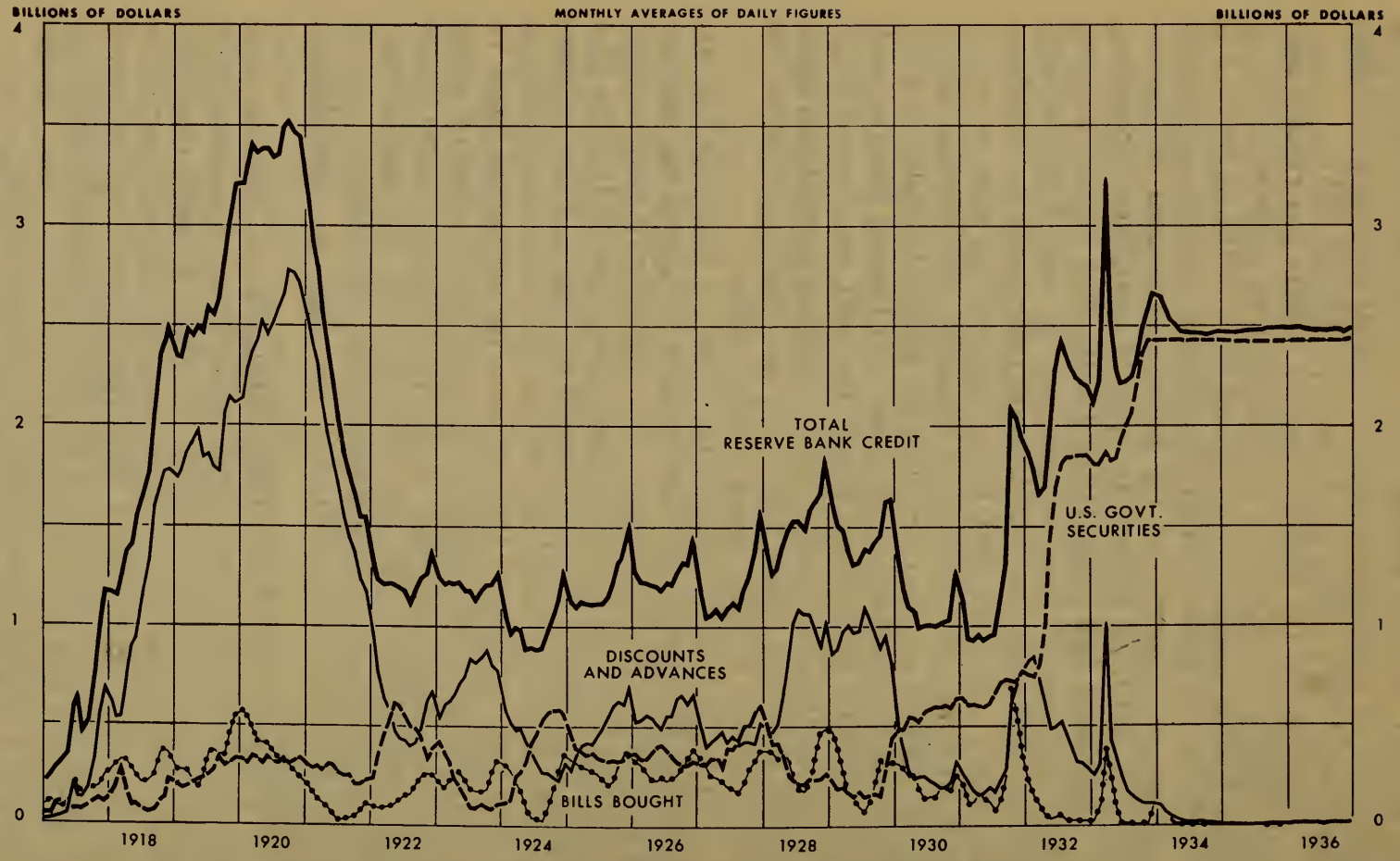
In 1922 Federal Reserve purchases of about $0.5 billion of federal government bonds were made to expand the earnings of the Federal Reserve System. The reduction of member bank borrowing from $2.75 billion toward the close of 1920 to $0.4 billion had reduced Federal Reserve earnings. In this unintentional fashion large-scale open-market operations were initiated. It was soon recognized that open-market operations could be performed much more effectively, in relation to general credit conditions, if the activities of all the Federal Reserve banks were coordinated. This was done through the establishment of a committee of Federal Reserve bank presidents. Later, in 1933 legislation provided for the Federal Open-Market Committee.

**Purchases and Sales (1923-1933).** Federal Reserve holdings of federal government bonds were decreased to about $0.25 billion in the autumn of 1923. In 1924, business conditions deteriorated in the United States, and the Federal Reserve System expanded its holdings of federal government bonds to a peak of $1.25 billion in the autumn of 1924, but again by the spring of 1925 they had been reduced to $0.75 billion. This approximate level was maintained until the autumn of 1927.

Charts 6A and 6B show that the open-market operations of the Federal Reserve System during this period were counter-

# CHART 6-A

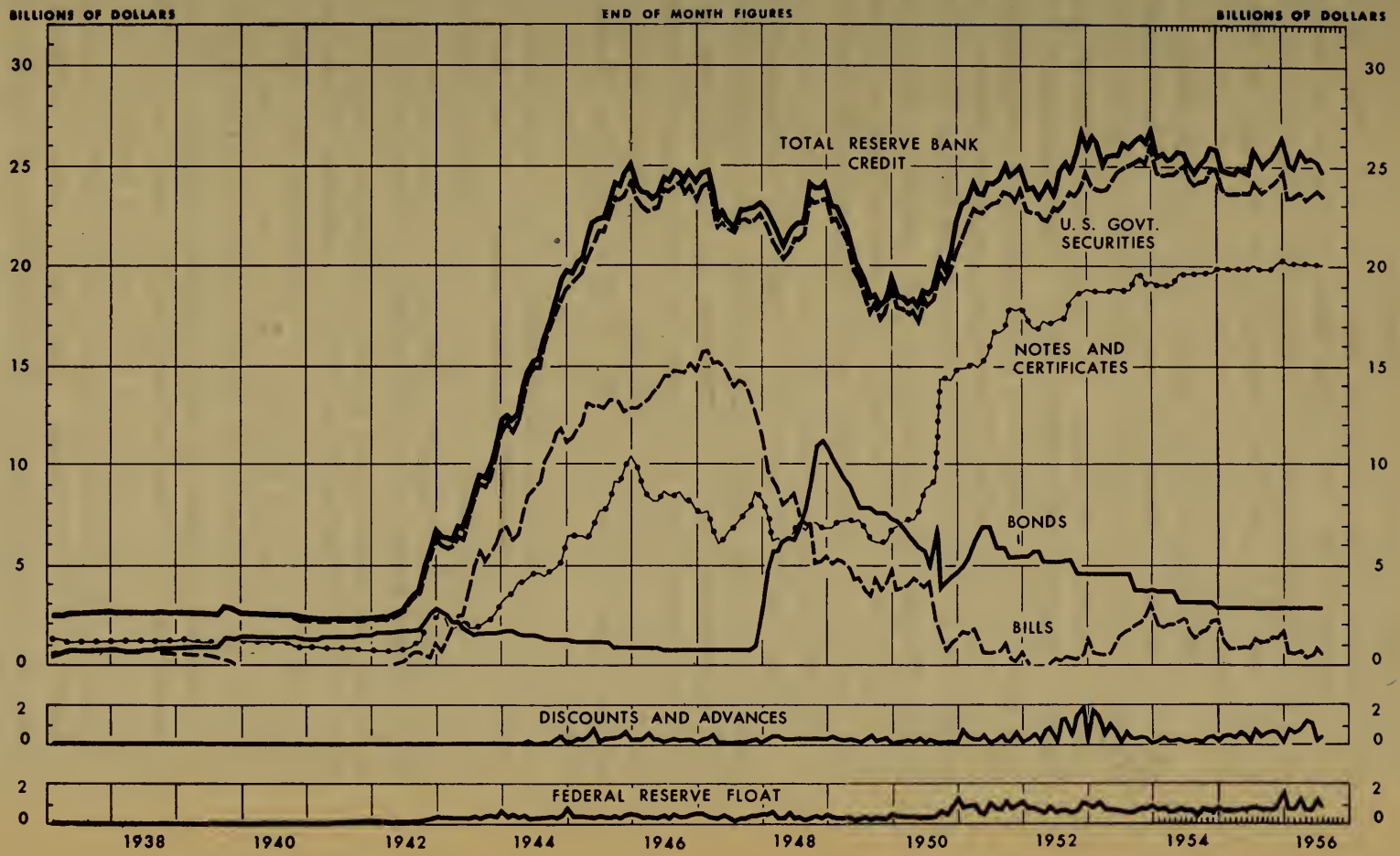
## RESERVE BANK CREDIT




Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 4.

# CHART 6-B

## RESERVE BANK CREDIT




Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 5.

acting the fluctuations in outstanding Federal Reserve credit arising from changes in the quantity of commercial bills discounted with Federal Reserve banks. In 1922, 1924, and 1927 the quantity of commercial bills discounted decreased due to the reduction of business activity, but the full impact on the quantity of Federal Reserve credit was modified through open-market purchases.

In 1923, 1925, 1926, 1928 and 1929, the holdings of federal government securities were reduced. This lessened the impact on the quantity of Federal Reserve credit of the expanded business conditions of the period and the resulting greater quantity of commercial bills. These actions of the Federal Reserve System show an abandonment of a major principle of its establishment, that is, that the quantity of Federal Reserve credit was to fluctuate with the needs of business as indicated by the quantity of commercial paper (elastic credit). *Instead, by as early as 1924 the policy had become one of preventing the quantity of commercial paper from affecting the amount of Federal Reserve credit.*

The great test of the effectiveness of open-market operations as a tool to stabilize the economy was made in 1932. It will be remembered that the rate of discount was sharply dropped immediately after the crash of the stock market in the autumn of 1929. This failed to bring back prosperity; it actually appeared to have little effect on the level of economic activity.

The discount rate was raised in 1931 to save the United States' gold supply. This was contradictory to the general policy of credit relaxation. A little later the Federal Reserve System inaugurated the largest open-market operations up to that date. Within a span of a few months in the spring and summer of 1932 (an election year), over $1 billion of federal government bonds were purchased; in the summer and autumn of 1933, another $0.5 billion were purchased; this brought the holdings to about $2.5 billion. *They were maintained at approximately this level until World War II* (see Chart 6-B).

**Twofold Purpose of Open-Market Activity.** The use of open-market operations to maintain a constant level of Federal Reserve earnings, which was their original purpose, is not inconsistent with the additional use to maintain the proper level of Federal Reserve credit. They both point to simultaneous expansion or contraction of holdings, that is, expansion during a business depression and contraction during a business prosperity.

Beginning with the 1930's, Federal Reserve commercial paper activity became unimportant. The quantity discounted and bought by the Federal Reserve System, after a brief surge during the period of the bank holidays in 1933, became insignificant. Since 1933 the Federal Reserve credit extended to purchase federal government bonds has been the total credit extended, and not merely credit extended to compensate for fluctuations of discount or purchase of commercial bills.

The increase of discounts and advances at the end of 1952 and the first part of 1953 was a brief exception to this generalization. (Chart 6-B).

**Purchases and Sales (1942-1949).** The holdings of federal government bonds reached a new peak in 1942 when they went above $6.0 billion, and they climbed steadily until the end of 1945 when they totaled $24.0 billion. The increase was largely determined by the credit needs of the federal government as they were seen by the Treasury and the Federal Reserve Board. During the period of large-scale federal borrowing, the open-market purchases were made to permit expansion of federal debt without placing an undue strain on the money markets of the nation. The principal aim was to give the commercial banks sufficient reserves to enable them to expand their deposits by the amount needed to buy the government debt that savers were unwilling to buy at the prevailing interest rates. The postwar activities until the summer of 1949 were largely directed at keeping long-term federal government bonds up to par. On occasion this required large open-market purchases during a rather short period; for example, the large purchases during the fall of 1948.

Reversal of Policy in 1949. In the spring and summer of 1949, interest rates began to fall. The continuation of the policy of keeping uppermost a fixed interest rate on long-term federal government bonds necessitated substantial open-market sales. From April 27 to June 29 (when the policy was changed) the Federal Reserve System sold $1.7 billion of federal government bonds. This tended to raise interest rates and reduce member bank reserves during a period of business recession when the opposite would have been the more desirable monetary policy.

Open-market activities to supply suitable credit conditions would *contract* the quantity of Federal Reserve credit during a *boom* through open-market sales and *expand* Federal Reserve credit during a *depression* through open-market purchases. Open-market activities to maintain long-term federal

government bonds at par would *increase* the quantity of Federal Reserve credit during a *boom* when interest rates tend to be rising and would *decrease* the quantity of Federal Reserve credit during a *depression* when interest rates tend to be falling. The effect of these two goals that required almost opposite types of action made open-market activities from the end of World War II until March 1951 very indecisive.

## Policy Development after 1949

From June 29, 1949, until March 4, 1951, there were varying degrees of official disagreement between the Treasury and the Federal Reserve as to what should be the interest rate policy on government securities. It was the general position of the Federal Reserve that it could not continue to have its responsibility to control the quantity of credit in the best interests of the country restricted by a pattern of interest rates on federal government securities established at the outset of World War II. It was the general position of the Treasury that if the existing pattern of interest rates were not maintained and particularly if long-term marketable securities were permitted to fall below par, the federal government would find it very difficult to carry out refunding and new borrowing operations. Therefore the Treasury maintained that the best interests of the country were served by maintaining the interest rate pattern.

Finally, on March 4, 1951, these differences were settled in the announcement of a policy "accord" which relieved the Federal Reserve from the responsibility of maintaining any given pattern of market interest rates on federal government securities. The effect of the "accord" has been to restore to the Federal Reserve the power to control the quantity of central bank credit in a way that the Board, acting under its basic mandate from Congress, believes best meets the needs of the economy. During the 1954 recession the Board interpreted this mandate to require a massive expansion of Federal Reserve credit. During the boom of 1957 the Board refused to expand bank reserves and the effect was a shortage of loanable funds. During the recession of late 1957 and 1958 the Board failed to act as forthrightly as it had in 1954. (See page 54.)

## To Meet Money Market Needs

Most open-market sales and purchases do not affect the

ultimate quantity of central bank credit. An example of this more common type of open-market operation is the net open-market purchases made in December of every year. At this time commercial bank loans are high and the cash held by the public is much larger than usual. Both of these increase the need for central bank reserves, and it is largely through open-market purchases that the reserves are provided as needed. After Christmas central bank reserve requirements are reduced, and at this time open-market sales are made to decrease the amount of central bank credit.

Other times when money market-type open-market action is likely is on quarterly income tax payment dates and when the Treasury is engaged in a new borrowing or refunding operation. In the latter case what was originally intended to be a temporary increase in central bank credit is more likely to become permanent, than are increases related to seasonal needs or tax payment requirements.

**Short-Term and Long-Term Interest Rates.** Shortly before the United States entered World War II the interest rates on 3-month bills was ⅜ per cent and that on long-term bonds was 2½ per cent. When the nation entered actively into the conflict it was determined to maintain these rates despite the quite conclusive evidence that the spread between the long-term and short-term interest rates was too great.

The monetary powers of the federal government during a period of war are sufficiently great to obtain any quantity of funds at any rate of interest. But maintenance of an artificial spread between interest rates of different types of obligations is another story. The results of the attempt during World War II were mostly undesirable. It resulted in (1) long-term bonds selling above par, (2) speculation in government securities arising from what was called "playing the pattern of rates," (3) increased holdings of securities by the commercial banks and increased inflation. The basic reason for the original decision was to assure investors that interest rates would remain constant and therefore they had nothing to gain from delaying their purchase of government securities. The goal could have been reached nearly as efficiently through establishing only the rate of long-term bonds. This guarantee could have been readily realized.

The rate on bills in 1957 rose to over 3.0 per cent while the rate on long-term federal government bonds was about 3.4 per cent. This spread of 0.4 per cent is not an

unusual situation and there have been many periods when the short-term rate was even higher than the long-term rate.

**Reserve Requirements.** The Federal Reserve Board requested the power to set member bank reserve requirements as early as 1916, but the power was not granted until 1935 and then only within limits.

PURPOSE. It was thought that an increase in member bank reserve requirements would reduce the quantity of credit, and a decrease in reserve requirements would increase the amount of credit. An increase in reserve requirements was supposed to have a great effect because the theory assumed that banks were utilizing all their reserves and that reserves required were only a fraction of deposits. Therefore, an increase in reserve requirements would force a reduction of deposits and, as a result, would force a reduction of credit extended by commercial banks. A change of reserve requirements also changes commercial bank profit possibilities.

**Reserve Requirements 1936-1950.** The legislation of 1935 gave the Federal Reserve Board the power to double member bank reserve requirements from the level which had existed since June 21, 1917. The 1917 demand deposit requirement was 13 per cent for central reserve city banks, 10 per cent for reserve city banks, and 7 per cent for country banks. The time deposit requirement for all member banks was 3 per cent. The special session of Congress in the summer of 1948 passed legislation giving the Federal Reserve Board power, until June 30, 1949, to increase all demand deposit reserve requirements by an additional 4 points and time deposits by 1½ points. The 1948 legislation was not renewed, so the reserve requirement powers have reverted to those possessed since 1935. The maximum reserve requirements that can be set by the Federal Reserve Board on demand deposits (1950) are 26 per cent for central reserve city banks, 20 per cent for reserve city banks, and 14 per cent for country banks. The maximum time deposit requirement is 6 per cent.

Table 7 summarizes the changes made in member bank deposit reserve requirements. The reader should note that the reserve requirements of December 1949 are nearly identical with those in effect from 1938 up to the war period. This is perhaps about as high as reserves can be maintained without member banks beginning to consider Federal Reserve membership onerous rather than beneficial (see page 107).

1936-1938 CHANGES. The undesirable banking conditions of the country reached a climax in 1933 when all banks were

closed. The banks were gradually reopened as they put their finances in order. The change of administration monetary policy (see pages 87–90), the change in the psychology of depositors and borrowers added to large imports of gold, resulted in the accumulation of large excess reserves by commercial banks. As a result the Federal Reserve Board decided in 1936 to use its newly acquired power to change deposit reserve requirements. These changes are given in Table 7. By May 1, 1937 all reserve requirements had been doubled (the maximum possible).

This decision to raise reserve requirements had a generally desirable effect. However, the sharp increase in the spring of 1937 resulted in unnecessary credit stringency which should have been more quickly relieved through open-market purchases. This large increase in reserve requirements and the hesitancy in reducing the pressure through open-market purchases is often considered one of the causes of the very sharp drop in economic activity during the second half of 1937 and the first half of 1938. The action and the effect were quite similar to the 1920 (see page 83) and the 1929 (see page 84) experience. The reaction on these three instances is very likely a portion of the reason for the great caution, prior to 1957, that the Federal Reserve Board has shown in applying deflationary measures during the post World War II boom.

1941-1942 Changes. The member bank reserve requirements were reduced in the spring of 1938 and remained at that level until late in the fall of 1941, when they were again set at the maximum permissible. The reserve requirements, with the exception of those of central reserve city banks, remained at this level through the World War II period. The reserve rates of commercial banks in New York and Chicago (central reserve cities) were reduced from the 26 per cent requirement established in the fall of 1941 to 20 per cent set in the fall of 1942.

The reserve requirements of the commercial banks of New York and Chicago were reduced to facilitate the huge federal borrowings of the period. Loans obtained by the federal government in these financial centers were spent in all the production and training centers of the nation; this caused a heavy drain on the reserves of the central reserve city banks, and reduction of reserve requirements of these banks prevented this drain from increasing Treasury borrowing difficulties.

1948-1949 Changes. The postwar inflation gained momentum through 1946 and 1947, and by the summer of 1948 consumer prices had reached a new all-time high. The special

# Table 7

## MEMBER BANK RESERVE REQUIREMENTS

[Per cent of deposits]

| Effective date of change | Net demand deposits[1] | | | Time deposits | |
|---|---|---|---|---|---|
| | Central reserve city banks | Reserve city banks | Country banks | Central reserve and reserve city banks | Country banks |
| 1917—June 21 | 13 | 10 | 7 | 3 | 3 |
| 1936—Aug. 16 | 19½ | 15 | 10½ | 4½ | 4½ |
| 1937—Mar. 1 | 22¾ | 17½ | 12¼ | 5¼ | 5¼ |
| May 1 | 26 | 20 | 14 | 6 | 6 |
| 1938—Apr. 16 | 22¾ | 17½ | 12 | 5 | 5 |
| 1941—Nov. 1 | 26 | 20 | 14 | 6 | 6 |
| 1942—Aug. 20 | 24 | ..... | ..... | ..... | ..... |
| Sept. 14 | 22 | ..... | ..... | ..... | ..... |
| Oct. 3 | 20 | ..... | ..... | ..... | ..... |
| 1948—Feb. 27 | 22 | ..... | ..... | ..... | ..... |
| June 11 | 24 | ..... | ..... | ..... | ..... |
| Sept. 16, 24* | 26 | 22 | 16 | 7½ | 7½ |
| 1949—May 1, 5* | 24 | 21 | 15 | 7 | 7 |
| June 30, July 1* | ..... | 20 | 14 | 6 | 6 |
| Aug. 1, 11* | 23½ | 19½ | 13 | 5 | ..... |
| Aug. 16, 18* | 23 | 19 | 12 | ..... | 5 |
| Aug. 25 | 22½ | 18½ | ..... | ..... | ..... |
| Sept. 1 | 22 | 18 | ..... | ..... | ..... |
| 1951—Jan. 11, 16* | 23 | 19 | 13 | 6 | 6 |
| Jan. 25, Feb. 1* | 24 | 20 | 14 | ..... | ..... |
| 1953—July 1, 9* | 22 | 19 | 13 | ..... | ..... |
| 1954—June 16, 24* | 21 | ..... | ..... | 5 | 5 |
| July 29, Aug. 1* | 20 | 18 | 12 | ..... | ..... |
| In effect, Jan. 1, 1956 | 20 | 18 | 12 | 5 | 5 |
| Present legal requirements: | | | | | |
| Minimum | 13 | 10 | 7 | 3 | 3 |
| Maximum | 26 | 20 | 14 | 6 | 6 |

[1] Demand deposits subject to reserve requirements, which beginning Aug. 23, 1935, have been total demand deposits minus cash items in process of collection and demand balances due from domestic banks (also minus war loan and series E bond accounts during the period Apr. 13, 1943–June 30, 1947).

*First-of-month or midmonth dates are changes at country banks, and other dates (usually Thursdays) are at central reserve city or reserve city banks.

Source: *Federal Reserve Bulletin*, January, 1956, p. 20.

session of Congress called in the summer of 1948 to decrease the inflation and expand housing facilities passed inflationary housing legislation and deflationary banking legislation. The expansion in the Federal Reserve System's ability to increase reserves which was granted at this time was previously referred to on page 94. The Federal Reserve Board utilized this new power in the early fall of 1948 to set reserve requirements at the highest point in history (see Table 7).

The danger of inflation subsided during the first months of 1949, and by the early summer of 1949, fear of deflation had replaced that of inflation. The Federal Reserve Board took cognizance of the changed situation and began to gradually reduce reserve requirements in the spring of 1949. By September of 1949 member bank reserve requirements were at the approximate level established in the spring of 1938 (see table 7).

The inflationary impact of the Korean war caused Federal Reserve banks in cooperation with the Board to sharply increase commercial bank reserve requirements and by February, 1951, they had been set at a new relatively high plateau that was held until July, 1953. During the slight recession of 1953 and 1954 the reserve requirements were reduced by approximately 20 per cent to 20 — 18 — 12 and 5 per cent of deposits. This level of reserve requirements was continued through 1957. In early 1958 reserve requirements were reduced again.

During the immediate postwar period the expansion of member bank reserve requirements largely resulted in a reduction of the holdings of federal government securities by member banks and an expansion of holdings by the Federal Reserve banks. This decreased the earnings of member banks and increased those of the Federal Reserve banks. This reversal of ownership also reduced the economic burden of the federal debt because almost the entire expansion of Federal Reserve earnings is paid into the federal government as a self-imposed tax. Another effect of increased reserve requirements is that Federal Reserve membership becomes less desirable, which tends to decrease the number of state bank members.

More recently the change of reserve requirements has been aimed at changing the quantity of commercial bank credit available to private borrowers. For example, a decrease of reserve requirements would be effective in expanding lending if money needs of unsatisfied willing borrowers could be met by banks after a reduction of reserve requirements had caused a drop of interest rates.

**Developing Central-Bank Policy.** The central-bank policy that was developed in Great Britain during the 19th century and then incorporated into the Federal Reserve System and further refined and expanded was based on squeezing the financial structure at its most sensitive and critical points. These points were found by experimentation and observation of results. Since the 1930's the most sensitive and critical points of the financial structure of the United States and other nations have changed. It is a prime duty of the Federal Reserve Board and other central-bank authorities to determine and understand the exact types of national financial structure changes. The next job is to determine the new sensitive and critical points and devise policy to effect changes at these points.

AIM OF CENTRAL-BANK POLICY. The use of what is called "the bank rate technique"—its use in the United States has been described above—resulted from the development of effective procedures to hit the sensitive and critical points in the 19th and early 20th century financial structure. The changed financial structure of the 1940's and 1950's requires new techniques, which more than likely will require much more refined and direct action than is provided by changes in the rate of interest.

The development of direct actions, such as control of margin requirements and consumer credit are likely to set the pattern for the new tools of central bank policy. Again the tools utilized will be aimed directly at the sensitive and critical areas of the existing financial structure, that is, fluctuations in consumer expenditures and in capitalization of business earnings. Reduction in the importance of the older tools and procedures of central bank policy and the development of new techniques does not mean an abandonment of traditional central-bank policy. Rather, it signals a return of the traditional approach. It returns central-bank techniques to the old principle that monetary tools to be effective must operate on the most sensitive and critical points of the financial structure.

## Additional Tools

TREASURY BILL TECHNIQUE. The *Treasury bill technique* utilized during World War II permitted commercial banks to use all their reserves by eliminating the need to maintain reserves to meet contingencies. The banks could always sell Treasury bills without loss when they needed additional reserves. Also, the sale included a repurchase agreement if the bank in the near future should again desire to hold Treasury

bills. It was better than Federal Reserve loans or advances because it avoided the popular prejudice relating to being in debt to the Federal Reserve System, yet the effect was the same. Also, the device was better than open-market operations because the additional reserves were made available only to the banks needing them and only in the amount required.

QUALITATIVE CREDIT CONTROL. Qualitative credit control was formerly an important power possessed by the Federal Reserve Board that could be used to encourage extending credit for what were considered legitimate commercial purposes. When the Federal Reserve System was established, only limited types of debt obligations (largely commercial paper) were eligible for a grant of Federal Reserve credit (securities for an advance from Federal Reserve banks); gradually the list has been expanded. Now under certain circumstances, almost any type of obligation may be used as the basis to obtain Federal Reserve credit. However, it is still true that the interest rate is ½ per cent higher if advances are extended on the basis of collateral other than banker's acceptances or federal government obligations.

MARGIN REQUIREMENTS. The Federal Reserve Board possesses one direct instrument of credit control. Since 1934, it has had the *power to change margin requirements* from 40 per cent to 100 per cent. The control applies to all margin transactions in stocks on registered security exchanges, and also to bank loans for the purpose of trading or carrying any stock traded on such exchanges.

CONSUMER CREDIT CONTROL. Another direct credit control was provided under Regulation W. Under Regulation W, the Federal Reserve Board was able to *regulate the conditions under which installment and consumer credit could be extended.* The power was first granted shortly before World War II and was removed on November 1, 1947, only to be restored on September 20, 1948, and permitted to expire on June 30, 1949. Then after the outbreak of the Korean War the Board was again given power to regulate consumer credit and regulation W was re-imposed September 8, 1950, and suspended May 7, 1952. Regulation W permitted the Federal Reserve Board to set the period of time over which consumer credit could be extended, and the size of the down payment. Data gathered indicate that Regulation W was much more effective in reducing the quantity of consumer credit during World War II than during the Korean War.

REAL ESTATE CREDIT CONTROL. On October 10, 1950

under Regulation X the Board introduced procedures to limit the quantity of credit extended to purchase new and old homes. The regulation was suspended on September 16, 1952.

## ANALYSIS OF THE ECONOMIC IMPACT OF GOVERNMENT POLICY

The expansion of the importance of economic activity of the federal government since 1913 has changed the character of the Federal Reserve System. When the Federal Reserve Act was originally written, it was assumed that the decisions of businessmen to produce or not to produce would be nearly the only factor determining the quantity of employment, the amount of production, and the level of prices. Business decisions have remained important, but in addition there is today a very important area of government economic decision. With the growth of economic activity of the federal government, economic policies of the Treasury and alphabetic agencies such as VA, FHA, and CCC have become very important. As a result, efforts to coordinate government monetary activity are necessary to prevent operation at cross purposes.

**During World War I and the 1920's.** The effects on the Federal Reserve System of Treasury policy were unimportant during 1913-1917. It was not until the United States became an active participant in World War I that Treasury policy had a vital effect upon Federal Reserve activities. The Treasury's desire and need to borrow on convenient terms during World War I forced the Federal Reserve System to adopt a very lenient credit policy.

Again during the 1920's the Federal Reserve System was to some extent forced to follow a policy against its better judgment as a result of the Treasury's activity in reducing the World War I federal debt. The reduction of federal credit throughout the 1920's made it necessary that additional credit be extended; otherwise the quantity of credit (money) would have been reduced. If this had been permitted, prices might have fallen during the 1920's. The Federal Reserve Board thought that this would be depressive and would cause undesirable economic developments, and therefore extended credit on rather easy terms during this period. This resulted in use of credit inflation to maintain stable prices and prosperity. It also provided the groundwork for the stock market boom, consequent crash, and the following serious depression.

**During the 1930's.** It was not until the middle of the 1930's that the Federal Reserve policy designed to increase prosperity after the crash of 1929 was seen to be a failure. It was then that the Treasury program began to dominate the drive toward prosperity. The Treasury this time began to expand the quantity of credit, through direct government borrowing from commercial banks. Also during the latter part of the 1930's, the Treasury commenced war finance borrowing. After 1941 and until 1946, the Treasury bond program completely dominated Federal Reserve monetary policy.

**During World War II and the Postwar Period.** During World War II, the Federal Reserve considered it expedient to follow a liberal credit policy despite the rapidly expanding inflationary pressures. Here again Federal Reserve policy was dominated by Treasury needs and desires. The Federal Reserve Board did not find it practical to thwart or even seriously criticize Treasury war finance procedures.

The postwar Federal Reserve credit policy supplied banks with liberal quantities of reserves and maintained low interest rates while inflationary price rises were occurring. This procedure is directly contrary to the objectives of Federal Reserve credit-control policy. However, it was the program of Federal Reserve banks during the first year of the postwar inflation.

The reasons for the postwar policy have been varied. Some of the more obvious and important were to (1) enable the Treasury to continue to refund federal debt at low interest rates, (2) prevent a fall in the market value of long-term government bonds, and (3) encourage investment and in particular home construction. The reduction of the World War II debt has been sporadic, and a concerted program of federal debt reduction is not expected. It also appears that the federal debt will remain very large. If so, the pressure on the Federal Reserve System to extend additional private credit during the 1950's will be easier to resist than that during the 1920's. It is quite possible that this tighter Federal Reserve credit policy will be more than counteracted by increased credit extended or guaranteed by federal agencies.

**Relationship with the Treasury.** The Board of Governors as originally constituted comprised 12 members to be appointed especially as Board members, and two additional members who were to be the Secretary of the Treasury and the Comptroller of the Currency. The Comptroller of the Currency and the Secretary of the Treasury were removed from Board membership in 1935. Although the Treasury is not at

present officially represented on the Board of Governors, the actions of the Board have such a direct effect on treasury debt management responsibilities that close collaboration is necessary.

During the immediate post-World War II period a conflict developed between Treasury and Federal Reserve policy. At that time Marriner S. Eccles, the Chairman of the Board, was relieved of his duties as chairman and a new Board appointee, Thomas B. McCabe, was made chairman. The new chairman's ideas were considered at the time more similar to those of the Treasury than had been those of Mr. Eccles. This did not prove to be the case and in 1951 Mr. McCabe after having won policy independence for the Federal Reserve resigned and was succeeded by William McChesney Martin Jr. who has continued to set an independent course within the permissable limits.

FEDERAL GOVERNMENT INTEREST. Since the banking and monetary legislation of 1935, the monetary activities of the Federal Reserve System have been definitely under the control of the Board of Governors which functionally is similar to any other independent agency of the federal government. Also, since the great depression the federal government has been interested in promoting a desirable level of economic activity. This aim has been advanced through requiring coordination of Federal Reserve actions with other economic agencies, particularly the Treasury.

## ANALYSIS OF EFFECTIVENESS OF INTEREST RATE CONTROL

The impact of the Federal Reserve System on the economy is still largely dependent on the effectiveness of the interest rate in regulating economic activity. The rate of interest has been considered important in economic activities because of its close relationship to the quantity of savings and investment, and therefore the size of national income. Also a fall in the rate of interest causes the market value of previous investments to rise and an increase in the rate of interest causes a fall in the market value of previous investments.

**Supply of Loanable Funds.** The savings of individuals equal income received which is not spent for consumption. The portion of additional income spent for consumption is called the *marginal consumption function* or the *marginal propensity to*

*consume*. If the marginal propensity to consume is large, savings arising from the additional income are small. The marginal propensity to consume tends to be greater if the income level of the income recipient is low.

The other principal determinant of the supply of loanable funds is "liquidity preference." Liquidity preference (see pages 37–42) refers to the unwillingness of people to tie up their money in some fashion that it will not be immediately available to meet current or emergency needs or to take advantage of special opportunities for profitable speculation. Interest is paid to induce people not to make financial investments and not to consume, but to make real investments.

**Demand for Loanable Funds.** From the aspect of demand for loanable funds, the rate of interest is primarily related to earnings from new investments. This is called the marginal efficiency of capital. Actually at any given time, anticipation concerning the future marginal efficiency of capital rather than the efficiency ratio currently prevailing is more likely to control the actions of businessmen. Thus the Federal Reserve System by any activity which reduces the rate of interest tends to encourage investment. Reducing the rate of interest increases the demand for loanable funds and also tends to reduce their supply; however, it does not equate the demand and supply. (This equating is done through an expansion or contraction of the disposable income.) It is realized today that the rate of interest, if it equates anything, equates only the desire to hold liquid assets with the amount of cash.

The demand for funds for real investment is determined by their cost in relation to the marginal efficiency of capital. If the marginal efficiency of capital is constant, the Federal Reserve System, by causing an increase in credit (cash) would tend to cause a decrease in the rate of interest and expand the quantity of real investment. This method of expanding the quantity of investment may be quite important in investment areas such as housing and public utilities where interest payments are a large portion of the total cost. The goal would be liquid assets in excess of the amounts that members of the economy are willing to hold and interest rates that are sufficiently low to stimulate additional investment.

**Related to Federal Reserve Policy.** The rate of interest can be affected by Federal Reserve policies related to the economy's liquidity. The expansion of liquid assets will reduce interest rates. The effectiveness of this program is limited by the apparent high degree of interest elasticity of the demand for

liquid assets at low rates of interest. The effect of this is that very great increases in liquidity seems to be required before investment expands and then the inducement is largely a price rise which causes real rates of interest to fall very low, maybe below zero. The effectiveness of Federal Reserve policy to cut off a boom, through a program aimed at raising interest rates, is considerably greater.

# QUESTIONS and ANSWERS

**Questions:**

1. What are central banks?
2. Why is the Federal Reserve bank a bankers' bank?
   See the discussions on page 80.
3. What are the principal duties of the Federal Reserve agent?
4. How are the 24 branch offices of the Federal Reserve banks managed?
5. What has been the unique role of the New York Federal Reserve bank?
6. Who controls Federal Reserve policy?
   See discussions on pages 77–79.
7. What are the principal fiscal activities of the Federal Reserve System?
8. What were the purposes of the original Federal Reserve Act?
9. How effectively were the purposes of the Federal Reserve Act accomplished?
10. What were the more important factors causing the destruction of automatism in the monetary system?
11. What are the principal factors that tend to decrease and increase deposits at the Federal Reserve banks?
12. Differentiate between quantitative and qualitative control of credit.
    See discussions on pages 98–100.
13. What are the powers of the Federal Reserve System which may be used to control the quantity of credit?
14. What are the principal advantages and disadvantages of the monetary tool "rediscount rate"?
15. Why was it believed when the Federal Reserve System was established, and continued to be believed throughout the 1920's, that a central bank could adequately control the economy of a nation through its ability to change its rate of rediscount?
    See the discussions on pages 79–83.

16. What determines the size of member bank reserves?
    See the discussions on pages 86-88.
17. How do banks obtain a classification as a reserve city bank or a country bank?
18. What are the most obvious weaknesses of the geographic basis of classification?
19. What controls over reserves must central banks possess to determine the quantity of credit?
20. What are excess reserves?
21. What changes in rules governing reserves of member banks are being currently considered?
22. What are the principal advantages and disadvantages of the monetary tool "member bank reserve requirements"?
    See the discussion on reserve requirements on pages 94–95.
23. What are the principal advantages and disadvantages of the monetary tool "open-market operations"?
    See the discussion of open-market operations on pages 86–92.
24. Summarize the open-market activities of the Federal Reserve System during the period of the 1920's.
    See the discussions on pages 87–88.
25. What types of securities may the Federal Reserve System purchase and sell through its open-market committee?
26. What was meant by "playing the patterns of rates" during World War II?
    See the discussions on pages 93–94.
27. What disposition is made of the earnings of the Federal Reserve banks?
28. How does the Federal Reserve System affect the liquidity of bank assets?
29. What are the principal advantages and disadvantages of controlling conditions under which consumer credit is granted?
30. Summarize the Federal Reserve policy with regard to member bank reserve requirements.
    See the discussions on pages 94–97.

**Answers:**

1. Central banks provide for bankers the same types of services that bankers provide for their customers. In addition, central banks are granted a portion of the monetary powers possessed by a sovereign. Central banks possess the power to regulate the

expansion of deposits—"checkbook money"—that may be made by the commercial banks. They are also the depository for government funds and act as the fiscal agent of the government in most transactions related to the public debt.

In the past more than at present central banks have been considered the government agency best suited to maintain stable economic conditions. Maintenance of stable economic conditions is of course closely related and partly the result of the exercise of the other functions mentioned above.

Prior to World War I most central banks were considered able to act independently. Since the depression of the 1930's and especially since World War II, the central bank of nearly every country has become a government agency possessing little independence of action.

2. The member banks can utilize the Federal Reserve System to obtain additional quantities of cash when needed, they can borrow from Federal Reserve banks when necessary, they can establish deposits with Federal Reserve banks, and they can receive credit for the checks which they have accepted. These are largely the identical services which are provided individuals and businesses by the commercial banks. The Federal Reserve System does for banks what the banks do for individuals.

3. The duties of the Federal Reserve agent included policy-making activities until 1936, when the duties were limited to the routine activities provided by law. The principal legal duties are: (1) the accounting and storage work involved in the issuance and retirement of Federal Reserve notes, (2) maintenance of a local office at the Federal Reserve bank of the Board of Governors, and (3) the checking necessary to determine whether or not the orders of the Board are being carried out and reporting to the Board the results of this checking. These duties are carried out by assistants who are regular employees and not officers of the Federal Reserve bank.

4. The branches are run by a board of directors chosen for each branch by the Board of Governors and the Federal Reserve bank of the district, with the Federal Reserve bank choosing the majority. The day-to-day management of the bank is in the hands of the manager who is also a member of the branch's board of directors.

5. The New York bank is by far the largest of the district banks

and is located in the same city as the chief money, investment, and foreign trade markets of the world. In addition, the bankers of New York have traditionally been the leaders of United States banking activity. Prior to 1935 this resulted in the virtual domination of the Federal Reserve System by the New York bank headed by Benjamin Strong, an associate of the Morgan banking interests. The legislation of the 1930's reduced the power of the New York bank, expanded the powers of the Board of Governors, and put the Board in a position of unchallenged authority.

The position of the New York bank remains unique in that it (1) administers the open-market policy, (2) acts as the Treasury fiscal agent (this has been a source of expanding power during the postwar years), and (3) conducts the international transactions of the Federal Reserve System.

6. The Federal Reserve System is controlled by the federal government through its power to select the members of the Board of Governors who have complete control over Federal Reserve basic policy decisions. The ownership of the stock of the Federal Reserve banks by the member banks has not given them control over Federal Reserve policies. Expansion of the power of the Board of Governors has largely eliminated independent action by any of the twelve Federal Reserve banks.

7. The routine fiscal activities are concerned with (1) buying and selling gold, silver, foreign exchange, and government securities in the manner set down in various statutes; (2) cashing government checks, paying interest on federal securities, and transferring funds among Federal Reserve banks; and (3) performing the functions associated with the routine administration of the debt.

In addition to these routine functions, the Federal Reserve System conducts studies and makes recommendations with reference to Treasury interest-rate policy, security maturities and types, taxation legislation, foreign fund movements and general economic conditions.

8. To remedy the major defects of the revised National Banking Act of 1864 and the National banking system that developed from this act. To prevent a recurrence of credit crises like those of 1893 and 1907. To operate an automatic monetary system.

9. The Federal Reserve System has provided an efficient and

inexpensive method of transferring funds within the United States. The member banks can transfer funds through the simple process of debiting and crediting the balances of their deposits at the Federal Reserve banks. In fact, the basic weaknesses of the old banking system were largely eliminated through this concentration of reserves and the methods established for increasing and administering them.

The Federal Reserve System has had sufficient power to prevent development of money crises. As the Federal Reserve System developed, the basis for expansion and contraction of Federal Reserve notes became Federal Reserve holdings of federal government securities rather than commercial paper. This change reduced the currency elasticity of the type envisaged by the founders of the Federal Reserve System but increased the ability of the system to prevent crises arising from credit contraction.

The Federal Reserve System became a lender of last resort, always available to provide credit required by member banks to meet the needs of an emergency. Developments of the Federal Reserve System in the 1930's expanded the availability of its credit. Recent changes in the requirements regulating the extension of Federal Reserve credit have made every type of sound asset acceptable.

The weaknesses of the former banking system indicated in the recurrence of credit crises and the failure to provide an adequate automatic monetary system have not been completely remedied by the establishment of the Federal Reserve System. A very serious credit crisis arose in 1932 and 1933, necessitating the closing of all commercial banks. This, however, is the only serious crisis that has occurred since the establishment of the Federal Reserve System. The increased powers of the Federal Reserve System to lend to member banks, and the additional funds of the FDIC, assure that another crisis of the 1933 type will not develop. This guarantee of credit liquidity increases the need for careful supervision of banks and for assurance that credit is not being extended uneconomically.

The attempt to develop an automatic monetary system was destined for failure from the beginning. The very establishment of a central bank provides the basis for control and not for automatism of monetary activity. The basis for the automatic system was to be the gold standard, and the basis for changing the volume of reserves was to be the use of self-liquidating commercial paper. The volume of commercial paper was to control the expansion of demand deposits by member banks, and the

operation of the international gold standard was to regulate the reserves of the central bank. Instead, the commercial paper proved insufficient, it has been replaced with federal government debt; also, the international gold standard was eliminated in the 1930's, and has been replaced by the International Monetary Fund.

The Federal Reserve System was also established to provide an adequate fiscal agent for the federal government. The importance of this function has grown tremendously with the increase in the size of the federal budget and the federal debt. The Federal Reserve System has been a very efficient fiscal agent.

10. The basic cause of the destruction of automatism in the monetary system was the failure of commercial banks and the Federal Reserve to expand their deposits to the extent necessary to utilize completely the reserves available. It is incorrect to state that automatism was destroyed by monetary and banking legislation of the 1930's. Actually the destruction of automatism is inherent in the efficient utilization of a central bank. Therefore if a date is to be set, that date would be 1913, the year in which the Federal Reserve System was established.

The basic requirements of an automatic money system are that (1) reserve ratios remain constant, (2) the types of money or credit available for reserves remain the same and cannot be increased or decreased through administrative decrees, and (3) all available reserves be utilized.

11.

| Factors increasing deposits at the Federal Reserve banks | Factors decreasing deposits at the Federal Reserve banks |
|---|---|
| 1. Net inflow of coin or currency to the Federal Reserve banks | 1. Net withdrawals of coin or currency from the Federal Reserve banks |
| 2. Gold purchases by the Federal Reserve System | 2. Gold sales by the Federal Reserve System |
| 3. Discounting by the Federal Reserve System. | 3. Reductions of Federal Reserve discounts outstanding |
| 4. Reserve bank purchases of securities in open market | 4. Reserve bank sales of securities in the open market |

12. Qualitative control of credit refers to the establishment of legislation and rules determining the circumstances under which credit can be extended. An example of qualitative credit control is the Federal Reserve restrictions on the amount which can be borrowed to purchase stock, and the previous rules regulating the size of the down payment and the length of time over which payments may be extended for durable consumer goods.

Quantitative control of credit refers to the increase or decrease in the total amount of credit available. Quantitative controls assume that all credit uses are equally desirable and that the only important factor is the total amount of credit available. Qualitative controls, on the other hand, assume that different types of credit vary in desirability. Qualitative controls further assume establishment of a rationing system which results in all the attending difficulties of determining that the credit is being actually used as indicated by the borrower.

13. The powers are divided into two groups: (1) quantitative and (2) qualitative. Quantitative. It was originally believed that a central bank through changes in its rate of discount could control credit in the desired manner. This power was unconditionally granted the Federal Reserve System. The discount rate today is largely a reflection of the demand and supply conditions in the money market.

Open-market operations as a method of controlling credit were discovered gradually and partly by accident. Since 1923 open-market operations and changes of reserve requirements have replaced the discount rate as the most important tool for controlling credit. They affect the supply side of the money market and in this way have a considerable effect on the discount rate. (See pages 86–92.)

The reduction and the expansion of the reserves required of member banks is a third tool possessed by the Federal Reserve System to control credit. The Federal Reserve Board requested control over reserve requirements as early as 1916, but the power was not granted until 1935 and then only within limits. The restrictions on lowering reserve requirements have not affected Federal Reserve action, but those upon increases have. The reserve requirements during the winter of 1948-1949 were the highest in the history of the Federal Reserve System. (See page 95.) The change of reserve requirements reduces the quantity of open-market activity necessary to meet a particular Board goal.

At the beginning of World War II financing, the Federal

Reserve System made Treasury bills (federal obligations running 90 days and at that time bearing interest of ⅜ per cent per annum) completely liquid. This increased the effectiveness of member bank reserves and expanded credit member banks were able to extend the federal government. As the federal government debt and with it member bank liquidity expanded, the need for Treasury bills possessing a repurchase right and a guaranteed rate disappeared. The guaranteed rate was abandoned in 1947. The Treasury bill was a Federal Reserve tool for expanding credit, but it was not suited to contracting credit, as are the other tools mentioned above.

The final quantitative tool possessed by the Federal Reserve System is moral suasion. This amounts to advising member banks on how they should conduct their banking businesses. It has been quite effective but cannot counteract a strong drift toward either inflation or deflation. Combined with the active cooperation of the American Banking Association, it was utilized to reduce credit expansion in 1948 and under what was called the Voluntary Credit Restraint Program to reduce credit expansion in 1951.

Qualitative. The qualitative credit controls are the power to control margin requirements provided in the Securities Exchange Act of 1934, and the power over consumer credit terms granted at the start of World War II in Regulation W.

Margin requirements have been set as high as 100 per cent and reinstated during the Korean War along with the introduction of Regulation X to restrict the quantity of real estate credit. Regulation W & X expired in 1952. They have been recently reduced from 75 to 50 per cent in an effort to stimulate the stock market during 1958. These qualitative controls have proved quite efficient. The possibility exists of expanding this type of credit control, but the administrative problems are sufficiently serious to deter expansion except under unusual conditions.

14. Advantages

By varying the relative rates, it can be used to encourage and to restrict credit of different maturities.

It can be used to encourage private credit expansion without an immediate expansion of Federal Reserve credit.

It permits the central bank to affect economic activity without directly entering into the shaping of business decisions.

It affects most quickly those areas of the economy that are

expanding most rapidly, for the banks in those areas are most likely to be utilizing Federal Reserve credit.

Disadvantages

Its increase or decrease affects the price of all types of credit and not only credit in the particular areas in which the effect of the change of the rediscount rate is desired.

The change of the discount rate must be very great to have an important effect on the cost of the credit to the borrower.

The effectiveness of the device is dependent upon the commercial bank's need to borrow from the Federal Reserve bank. This need was very little up to the mid-1950's, it is likely to be somewhat greater in the future.

It affects only the cost of credit and not the amount. The general relative unimportance of the cost of borrowed funds to the total costs of a firm relegates changes of credit cost to a minor economic role.

15. The change of the rate of discount proved very effective when utilized by the Bank of England during the previous 75 years or so. This favorable experience was understood to have arisen because of the effect of the rediscount rate on the international flow of gold which determined the quantity of money, which in turn determined price levels. Recently it was again effective when the Bank of England raised its discount rate to 7 per cent.

16. Member-bank reserve balances at any time consist of Federal Reserve credit, plus gold stock, plus Treasury currency; minus (money in circulation, plus Treasury cash, plus Treasury deposits with the Federal Reserve System, plus nonmember deposits with the Federal Reserve System, and other Federal Reserve accounts).

17. The present law permits the Board of Governors to determine classification on a geographical basis only. The Board is not authorized to determine reserve classification on an individual basis or to take into consideration the character of a bank's business rather than its location.

18. The basis requires that small banks engaged in local business but situated in a reserve city must keep the higher reserve

city reserve requirements. Also there are a number of instances where a large bank holding a considerable amount of deposits of other banks, and with very active deposits, is situated in a locality where it must be classified as a country bank, and is consequently subject to smaller reserve requirements than institutions doing a similar type of business, but in a locality classified as a reserve city.

19. The basic powers are to determine (1) the legal reserve ratio and (2) the quantity of reserves. At present the Federal Reserve Board possesses both of these powers.

The maximum legal reserve ratio is set by Congress. The Federal Reserve Board, therefore, possesses freedom only within the limits set by federal legislation. The unused gold reserves of the Federal Reserve system and its holdings of government securities are sufficiently large to permit control of the quantity of monetary reserves within very broad limits.

20. These are member bank deposits in the Federal Reserve banks which are greater than the amount needed to meet legal reserve requirements. The current total of excess reserves is determined more by the recentness of a change in the size of deposits, reserves required and general current money market conditions than by the availability of reserves to back deposit expansion.

21. To place a higher reserve requirement on the deposit balances of banks (interbank balances) than upon the balances of others.

To consider cash in vault as a part of the required reserve of a bank.

To give banks a credit for deposits in other banks (correspondent banks) equal to the reserves which the bank holding the deposit is required to keep.

To remove the geographical basis and require the same basic reserve on all demand deposits.

22. Advantages

It can be used to supplement a rediscount and open-market policy.

The reserve position of member banks is directly and immediately affected.

It permits the Federal Reserve System to create easier money conditions without increasing the quantity of Federal Reserve credit.

The money market can be eased without increasing the quantity of gold reserves. In fact the immediate effect is to decrease the gold reserves needed by the Federal Reserve banks.

If the changes are made as a series of steps, the economy can adjust itself to the changed credit conditions.

Disadvantages

It treats all banks within each of the reserve classes alike.

Even though the changes are rather small percentages, the additional reserves required or released are considerable.

Like all indirect tools, it merely makes possible the desired reaction; it does not bring it about.

The permissive legislation sets limits to the amount of change permitted.

23. Advantages

It can be entered into in very small quantities to effect desirable minor adjustments of the money market.

The prices of particular types of credit instruments can be affected.

It can be readily coordinated with the debt program of the federal government.

The deflationary effect of open-market sales works itself out through exchange of a more liquid asset for a less liquid asset and not through destruction of assets.

It can be readily used in cooperation with the other monetary tools.

Disadvantages

The quantity of open-market sales (deflationary effect) is limited by the quantity of securities held by the Federal Reserve System. The purchase limit is less definite and is set by the quantity of reserves available to the Federal Reserve System to back its credit (gold).

Like all indirect tools, it merely makes possible the desired reaction; it does not bring it about.

It cannot be utilized to directly affect the prices of such securities as industrial stocks and mortgages.

24. Open-market activities as a method of affecting the rate of

interest and money-market conditions generally developed largely by accident during the early 1920's. The device proved quite effective in easing the credit stringencies of 1924 and 1927, but it was largely ineffective during the great credit crisis that developed in the fall of 1929.

25. All federal securities and securities guaranteed by the federal government. All state and local government securities issued in anticipation of tax receipts and with a maturity of less than six months. All commercial paper arising from international transactions and the shortage and shipment of staple commodities. All short-term credit arising from activities of the agricultural credit agencies established by the federal government.

26. Long-term government bonds would be issued at par, bearing a 2½ per cent rate of interest. This made the spread between the long-term interest rate and the short-term rate of ⅜ per cent greater than the market considered it should be. As a result, as soon as the newly issued bonds became part of the securities available on the market for investment their price would rise above par, which would lower the interest rate to the point where it corresponded with the market's judgment of the correct spread. Also, investors were willing to pay a higher price as time passed because these long-term securities, as they approached maturity date, became short-term securities but bore the higher rate of long-term securities.

27. Since the spring of 1947, 90 per cent of the Federal Reserve earnings have been paid into the Treasury through a self-imposed tax on Federal Reserve notes. Prior to 1933, a similar portion of earnings above the amount needed for dividends and additions to surplus was paid into the Treasury. This earlier payment was required by a franchise tax levied by Congress. The tax was repealed in 1933 when the Federal Reserve System provided about $133 million of the funds for the FDIC, and it has not been re-enacted.

28. The willingness of the Federal Reserve System to exchange its credit for most assets possessed by banks gives these assets a high degree of liquidity. Federal Reserve credit possesses the highest possible degree of liquidity; therefore, if a bank can exchange its assets for Federal Reserve credit, its assets possess a high degree of liquidity.

Federal Reserve credit would usually be granted to a bank as an expansion of the bank's deposit at the Federal Reserve bank. This expansion of the commercial bank's deposit with the Federal Reserve bank increases the commercial bank's reserves and permits it to expand its quantity of securities and loans and discounts and to meet adverse balances that may be arising at the Federal Reserve bank clearings. If the commercial bank is experiencing a run (rapid withdrawal of deposits), Federal Reserve credit may be extended as Federal Reserve notes to be used by the bank to repay its depositors.

This situation, plus the FDIC guarantees, would prevent any rapid reduction of the money supply, such as took place in 1932 and 1933.

29. Advantages

It directly regulates the type of credit over which control is desired and avoids the dangers inherent when a particular action affects all types of credit.

It is a particularly useful type of credit control during an immediate postwar period. It is also more acceptable at this time because of a greater willingness to accept direct controls.

It is useful to limit consumer credit expansion which has recently become much more important as a cause of business instability.

Disadvantages

It is difficult to enforce without a considerable amount of voluntary cooperation. This makes it much more helpful during a period of national emergency such as a war than during more normal periods.

It controls only the expansion of credit arising from consumer finance, which makes it a limited control of limited usefulness.

Its use requires direct interference and some control over an individual's methods of conducting business.

30. The Federal Reserve Board desired discretionary power in this area from very nearly the date of its establishment. The power, however, was not granted until 1935. The Federal Reserve Board quickly utilized the authority, and member bank reserve requirements were doubled by the spring of 1937. These rates were considered too high and they were lowered in 1938

to the approximate level existing today (1958). In the summer of 1948 this was the principal device used by the Federal Reserve Board to retard the great inflation (other than moral suasion). At this time Congress also granted additional power to increase member bank reserve requirements. This additional authority expired in the summer of 1949. Again in 1958 it was used extensively, this time to provide easier money conditions.

# Chapter 6
# COMMERCIAL BANK DEPOSIT EXPANSION AND CONTRACTION

A very basic feature of the banking and monetary system of the United States is that the commercial banking system through its day-to-day operations is able to change the money supply. The commercial banking system does this daily through the decisions made by loan officers of individual banks. However, the decisions of the loan officer must operate within the general credit atmosphere which is created by the availability of bank reserves and the profitability of borrowing.

Forgetting for the moment these inter-relationships and a multitude of other factors affecting the operations of the commercial banking system, let us concentrate on just the mechanics of money creation and destruction through the commercial banks.

As you know a commercial bank is primarily in the business of holding debt. The debt owed to the bank is of two general types: (1) loans and (2) securities and investments. The amount of all these debts owed to the bank is approximately balanced by the debt of the bank to its depositors—called deposits. It is through the expansion of the debt owed to it that the commercial banking system increases the debt it owes—deposits—which are a part of the money supply and are sometimes called checkbook money. However, originally because depositors may ask for some type of debt instrument (money) other than the bank's IOU's, and currently largely as a method of regulation, banks are required by law to keep a certain portion of their deposits in legal reserves. In the United States these legal reserves for all the banks members of the Federal Reserve System are deposits with the Federal Reserve Bank of the Federal Reserve District in which the commercial bank is located.

In the first example in which we develop deposit expansion

and contraction, it will be assumed that a central bank (the Federal Reserve System in the United States) does not exist. Under these conditions the reserves of commercial banks would be specie (gold and silver full-bodied coins) or government money, and the amount of reserves kept would be determined by the probable need to meet the demands of depositors and legal requirements. Illustrating deposit expansion under these conditions is advantageous because possible actions of the central bank need not be considered. Later this additional complication, that is so important, will be considered.

## Deposit Expansion as a Result of an Increase of Reserves

The formula for deposit expansion under the above conditions is:

$$\text{additional reserves} \times \frac{1}{\text{reserve ratio}} = \text{possible expansion}$$

We will substitute some figures for the general expressions in this formula, and apply them to an imaginary bank (Bank A) which operates on a reserve ratio of 1/5, i.e., its deposits are equal to 5 times its gold; then we will consider what happens when a merchant deposits $5,000 of gold in this bank, which gives the bank $5,000 of additional reserves. Putting these figures in the general formula, we have

$$\$5{,}000 \times \frac{1}{1/5} = \$5{,}000 \times 5 = \$25{,}000 = \text{possible expansion}$$

This formula provides the correct answer to possible deposit expansion if there were only one bank in the country or if there were a thousand banks. However, it does not show how the deposit expansion takes place.

To make our example more illustrative but still simple, we will assume there are a number of commercial banks and not just one in the country. The expansion of deposits will be shown by the use of a very abbreviated commercial bank balance sheet. As a starting point, let us assume that the balance sheet of our bank has just changed by the deposit of $5,000 of gold.

Bank A

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings increased | $5,000 | Demand deposits increased | $5,000 |

Because, as was shown in the formula, Bank A need keep

only 20 per cent of its demand deposits as reserves, and as gold is considered to be reserves, Bank A has $4,000 of excess reserves. It has $4,000 of excess reserves because only $1,000 of the additional gold is needed to give the increase of demand deposits a 20 per cent reserve coverage.

Our next assumption will be that Bank A lends to a customer $4,000. When this transaction has been completed, Bank A's balance sheet looks like this:

Bank A

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings | $5,000 | Demand deposits | $9,000 |
| Commercial loans increased | 4,000 | | |

The loan was granted to the customer by increasing his checking account (demand deposits) by $4,000. When the customer wishes to use his loan he will write checks or withdraw gold on his expanded account. Notice also that the note which the customer signed indicating that he owed the bank $4,000 is an asset of the bank; it represents the amount owed to the bank, which is just equal to the increase in the amount the bank owes—its demand deposits.

In order to continue this illustration of the expansion of demand deposits in a system of a number of commercial banks, we will assume that the customer spends his deposit by withdrawing gold. The effect of this is very like the situation of a modern commercial bank in the United States because a person receiving a loan is not very likely to spend it in such a way that the expenditure only results in the transfer of deposits from one account to another within the commercial bank.

Therefore we will have our borrower spend his deposit in gold, which causes the balance sheet of Bank A to change so that it looks like this:

Bank A

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings | $1,000 | Demand deposits | $5,000 |
| Commercial loans | 4,000 | | |

Our next step is to include another bank. This shall be called Bank B, and it is the bank in which the gold is deposited after the borrower from Bank A has spent his $4,000 loan. Bank B's balance sheet as a result of this new deposit of gold changes as follows:

Bank B

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings increased | $4,000 | Demand deposits increased | $4,000 |

If Bank B also utilizes its excess reserves to expand its lending, the commercial loans of Bank B will expand by $3,200 and so will its demand deposits. This will cause the balance sheet to change again so it would look like this:

Bank B

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings | $4,000 | Demand deposits | $7,200 |
| Commercial loans increased | 3,200 | | |

Again the loan was granted by increasing the customer's checking account. Also, let us again assume the borrower spends his new deposit by withdrawing gold which is deposited in yet another commercial bank. This causes the balance sheet of Bank B to look like this:

Bank B

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings | $ 800 | Demand deposits | $4,000 |
| Commercial loans | 3,200 | | |

Table 8 provides a summary of the transactions which have been explained in some detail. It also provides space for continuing the expansion of demand deposits from bank to bank. Actually the data of Table 8 is an infinite geometric series which never quite reaches but comes very close to the answer provided by the formula of the expansion of deposits.

TABLE 8

DEPOSIT EXPANSION AS RESERVES BECOME DISTRIBUTED AMONG THE DIFFERENT BANKS OF THE BANKING SYSTEM

| | *Reserves Received* | *Deposit Increase* | *Reserve Increase* | *Loan Increase* |
|---|---|---|---|---|
| Bank A | $5,000 | $5,000 | $1,000 | $4,000 |
| Bank B | 4,000 | 4,000 | 800 | 3,200 |
| Bank C | 3,200 | — | — | — |
| Bank D | — | — | — | — |
| Bank E | — | — | — | — |
| Bank F | — | — | — | — |
| Total | — | — | — | — |

## Deposit Contraction as a Result of a Reduction of Reserves

The process of deposit and loan contraction through the reduction of reserves is the reverse of expansion of loans and deposits as a result of an expansion of reserves and the same formula may be used. For example, if the reduction of reserves is $5,000 and the reserve requirement is 20 per cent, the reduction of deposits (liabilities) and loans and investments (assets) is shown by putting these data into the formula (It is assumed throughout that the commercial bank does not possess excess reserves).

$$\$\text{-}5{,}000 \times \frac{1}{1/5} = \$\text{-}5{,}000 \times 5 = \$\text{-}25{,}000$$

necessary contraction.

The way in which this reduction of commercial bank loans or investments and deposits takes place can be shown in a system of a number of commercial banks by going from bank to bank in the same way as we went from bank to bank in the case of the expansion of commercial bank reserves. In this case, let us call the first commercial bank, Bank Z. A customer of Bank Z decides to withdraw $5,000 of gold to use in paying for goods purchased abroad. This reduces the gold reserves of Bank Z, and it is now short of reserves, and it must act to replenish its depleted reserves. This can be shown in its balance sheet as follows:

Bank Z

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Reduction of gold holdings | $5,000 | Reduction of deposits | $5,000 |

The deposits of Bank Z are down by $5,000 but so are its gold holdings. The reduction of deposits by $5,000 relieved Bank Z of the need for 20 per cent of $5,000 or $1,000 of reserves, but Bank Z has lost $5,000 of reserves and is therefore short $4,000 of reserves. We will assume it recovers its reserve ratio by selling $4,000 of its assets to a depositor of Bank Y who pays for the securities by reducing his deposit in Bank Y by $4,000. As this makes Bank Y's obligations to Bank Z $4,000 greater than those of Bank Z to Bank Y, it is necessary for Bank Y to make the payment of the $4,000 check written by its customer by remitting $4,000 in gold to bank Z. This causes Bank Z's balance sheet to change as follows:

Bank Z

| *Assets* | | *Liabilities* |
|---|---|---|
| Gold holdings increased | $4,000 | No change |
| Securities decreased | 4,000 | |

Bank Z is now in balance again because its decrease of deposits of $5,000 resulting in a loss of gold of $5,000 and therefore a $4,000 shortage of reserves has been rectified. But Bank Y is now short of reserves. Bank Y lost $4,000 of deposits and also $4,000 of gold, and therefore it is short $3,200 of reserves. The changes in Bank Y's balance sheet as a result of the first transaction would be as follows:

Bank Y

| *Assets* | | *Liabilities* | |
|---|---|---|---|
| Gold holdings decreased | $4,000 | Demand deposits decreased | $4,000 |

To rectify the reserve shortage, Bank Y would make the following additional changes in its balance sheet:

Bank Y

| *Assets* | | *Liabilities* |
|---|---|---|
| Gold holdings increased | $3,200 | No change |
| Securities decreased | 3,200 | |

After this action, Bank Y's reserve position is again satisfactory, but the purchaser of the securities has made the reserve position of his bank unsatisfactory. Again we have the impact of a change in reserves flowing from bank to bank and finally bringing about the reduction in deposits indicated in the formula.

Table 9 provides a summary of the transactions which have already been explained, and in addition, provides space for continuing the contraction of demand deposits from bank to bank. Also, again it is an infinite geometric series that never quite reaches but comes very close to the answer provided by the formula of the contraction of deposits.

TABLE 9

DEPOSIT CONTRACTION AS OTHER COMMERCIAL BANKS SHARE IN THE ORIGINAL LOSS OF BANK RESERVES

| | *Reserves Lost* | *Deposit Decrease* | *Final Reserve Reduction* | *Decrease of Securities Held* |
|---|---|---|---|---|
| Bank Z | $5,000 | $5,000 | $1,000 | $4,000 |
| Bank Y | 4,000 | 4,000 | 800 | 3,200 |
| Bank X | 3,200 | — | — | — |
| Bank W | — | — | — | — |
| Bank V | — | — | — | — |
| Bank U | — | — | — | — |
| Total | — | — | — | — |

**Introduction of a Central Bank**

The basic procedure of the way the increase or the reduction of reserves available to a commercial bank may cause demand deposits, i.e., the quantity of money, to decrease or increase is not changed by the introduction of a central bank, such as our Federal Reserve System. The change caused by the central bank is that it can through its actions determine the quantity of reserves which will be available to commercial banks. A central bank if it had desired could have prevented (open-market purchases) the loss of $5,000 of gold by Bank Z from having any effect on the total reserves available to commercial banks. Also a central bank could have prevented (open-market sales) the increase in the reserves of Bank A from having any effect on the total reserves available to commercial banks.

Another change resulting from the introduction of a central bank is that it causes a conservation of the basic reserve, which is usually gold, as in the United States. If a central bank were in existence, the $5,000 of new gold could theoretically, and practically very likely might at some time in the future, become the reserves for a considerably greater expansion of deposits than was possible without the central bank and at the same time keep the reserve requirement of commercial banks at 20 per cent of demand deposits. However, under these new conditions, the reserves of the commercial bank would no longer be gold but deposits of the commercial bank with the central bank and the deposits of the central bank (a banker's bank) would be backed by the $5,000 of gold. In the United States the law at the present time requires that gold be equal to 25 per cent of

Federal Reserve deposits and paper money issued by the Federal Reserve (Federal Reserve credit).

Going back to the first example, let us suppose that commercial Bank A deposits its $5,000 of gold in the Federal Reserve Bank of its district. This increases the deposits of the Federal Reserve Bank by $5,000. To act as reserves for additional deposits, the Federal Reserve Bank would need only $1,250 of the new gold it had acquired. Therefore, the Federal Reserve has $3,750 of free gold while the commercial banking system has the same amount of additional reserves ($5,000 as an increase of member bank deposits) as when it utilized all the gold in a banking system without a central bank.

The Federal Reserve, if it wishes, can use this $3,750 of uncommitted gold as reserves for an expansion of its deposits, i.e., a further expansion of commercial bank reserves. It would expand its deposits in a way quite similar to that used by commercial banks. Typically the Federal Reserve Banks would increase their deposits by purchasing government securities with checks drawn on themselves (this is called open-market purchases). Or they could increase their loans to commercial banks (this is called discounting).

The theoretical expansion of deposits possible from an increase of Federal Reserve Bank gold supply of $5,000 with a 20 per cent commercial bank reserve requirement as commercial bank deposits in the central bank and a 25 per cent gold reserve requirement to back central bank deposits is expressed by the following formula:

$$\$5{,}000 \times \frac{1}{0.20 \times 0.25} = \$5{,}000 \times 5 \times 4 = \$100{,}000 = \text{possible expansion}$$

The theoretical contraction is, of course, as great. It is because of the great money supply expansion that is made possible by the introduction of a central bank, with no change in quantity of commercial bank reserve requirements, that has caused many persons to call central banks machines of inflation.

This is the bare skeleton of the money machine. The machine in real life is made to operate through the effect of a myriad of private and government decisions to borrow or repay their loans, to hold more cash or to hold less cash, to invest abroad or to invest at home.

# QUESTIONS and ANSWERS

Indicate in the transaction columns the results of the transactions described below. Indicate a rise by a +; a fall by a —; items remaining the same by an 0. Go on further than the impact of the transaction warrants. Assume, unless otherwise stated, that

1. Time deposits are not affected,
2. The Treasury account is held at the Federal Reserve,
3. All payments are made by check, and
4. Member banks have excess reserves.

**Questions:**

1. The effect if gold is exported for the purchase of strategic materials for stockpiling.
2. The effect if reserve requirements for member banks are lowered.
3. The effect if reserve requirements are raised slightly but member bank reserves remain adequate.
4. The effect if reserve requirements are raised and member banks find it necessary to call in loans to meet all of the new higher required reserve ratio.
5. The effect if reserve requirements are raised and member banks sell U.S. securities to the Federal Reserve to adjust to the higher reserve requirements.
6. The effect if many bank customers transfer funds from their checking accounts to their savings accounts. (Assuming current relationship between reserve requirements on savings and demand deposits.)
7. The effect if very large quantities of Federal Reserve notes are deposited in the checking accounts of member banks after the holiday season. Member banks do not expand the quantity of till money.
8. The effect if member banks have no excess reserves and no extra till money and the public withdraws large amounts of cash from their demand deposits.
9. The effect if member banks make non-cash loans of one billion dollars to customers, mainly businessmen, on notes and other commercial paper.
10. The effect if businessmen retire short-term loans previously secured from member banks by writing checks on their demand deposits.

See page 220 for Answers

| | Situations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| All Member Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Cash in Vault | | | | | | | | | | |
| Reserves with Federal Reserve Bank | | | | | | | | | | |
| Loans | | | | | | | | | | |
| U. S. Securities | | | | | | | | | | |
| Liabilities: | | | | | | | | | | |
| Adjusted demand deposits | | | | | | | | | | |
| Time deposits | | | | | | | | | | |
| U. S. government demand deposits | | | | | | | | | | |
| Advances from Federal Reserve Banks | | | | | | | | | | |
| Amount of Total Reserves | | | | | | | | | | |
| Amount of Required Reserves | | | | | | | | | | |
| Excess Reserves | | | | | | | | | | |
| Reserve Ratio | | | | | | | | | | |
| Federal Reserve Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Gold Certificates and other cash | | | | | | | | | | |
| U. S. Securities | | | | | | | | | | |
| Bills discounted and advances on notes | | | | | | | | | | |
| Liabilities: | | | | | | | | | | |
| Federal Reserve Notes | | | | | | | | | | |
| Member Bank Reserves | | | | | | | | | | |
| U. S. Treasury Account | | | | | | | | | | |
| Amount of Total Reserves | | | | | | | | | | |
| Amount of Required Reserves | | | | | | | | | | |
| Excess Reserves | | | | | | | | | | |
| Reserve Ratio | | | | | | | | | | |

# Chapter 7

# THEORY of MONEY, PRICES and EMPLOYMENT

## PRICE INDEX NUMBERS

The value of money is most frequently indicated by a concept labeled *general price level.* This is supposed to represent the average of prices of all commodities, services, and property rights currently being bought and sold.

The relationship between the value of money and this general price level is inverse and proportional; for example, a rise of 25 per cent in the general price level is equivalent to a decline of 20 per cent in the value or purchasing power of money. (A price level of 100 increases to 125. This is an increase of 25 per cent; 25 is 25 per cent of 100. Divide old price level (100) by new price level (125) and you have the purchasing power of the monetary unit. In this case it is 80 per cent of its former value, a drop of 20 per cent.)

**Variation in Price Movements.** This concept of general price level as a measure of the value of money would be satisfactory if all prices moved in the same direction, but this is not the situation. For example, between October, 1954 and October, 1955 the value of the dollar in terms of livestock and poultry increased by over 7 per cent while in terms of tires and tubes it decreased by about 12 per cent.

Although money is a standard of value, it is difficult to determine its own value. Obviously nothing is said when it is stated that a dollar is worth a dollar, and very little more has been said when it is stated that a dollar is worth 13.714 grains of fine gold. The first statement says nothing of the value of a dollar, and the second gives only the value in relation to gold, one commodity of many thousands.

Complexity of Determining Value of Money. Even though the value of money is not known, the generalization can

be made that its value changes. The value of money changed in relation to gold when the United States devalued the dollar in 1934. The value of money in relation to wheat changed when the price of wheat rose very rapidly during World War II. In both cases the value of money was decreased in relation to a single commodity. It is logical to measure the value of wheat in terms of money because almost all wheat grown is exchanged for money; the same is true of gold production. But it is not logical to measure the value of money exclusively in terms of either wheat or gold because money is exchanged for innumerable commodities, services, and property rights other than wheat and gold.

The forces which affect the supply and demand for a particular commodity do not necessarily affect the supply or the demand for all other goods. For example, in World War II the demand for wheat increased tremendously, while the demand for civilian men's clothes decreased.

**The Unweighted Index Number.** It is obvious from this brief discussion that the value of money cannot be stated in terms of one commodity, and also that the value of money can be stated only as the purchasing power over all types of commodities. This latter concept of value is very difficult to measure. The best that can be done is to determine an average of the prices of all goods, services, and property rights. If the average at one time were greater than at a previous time, the conclusion would be that the value of money had declined in inverse proportion. (The method of calculating this decline was indicated above.) However, all commodities cannot be included in arriving at this average; there are just too many different types of commodities.

METHOD OF CALCULATION AND USEFULNESS. It is necessary to select a certain group of commodities and calculate the average prices of these. The goods selected must be representative of the thousands of varieties which cannot be included in the compilation. The total of the prices of these goods compared with the total of the prices of the same goods at some previous period tells what has happened to the value of money during the period under consideration. This number can be referred to by the term *index number*. However, it is not the type of index number which is used today in estimating changes in the general price level. The index number described above is known as a *simple aggregate* of actual prices. The weakness is that each commodity affects the total index only in proportion

to its *price per unit,* but not in proportion to its relative importance in the total volume of trade.

**The Weighted Index Number.** To overcome the weaknesses of this simple aggregate, carefully selected *weights* are introduced. A weight is a multiplier applied to the price of a good in accordance with the relative importance of that good. Importance, of course, varies for different individuals and for different circumstances; however, an importance that seems to be applicable to the particular situation is selected. In the application of weights to actual prices, the quantities of goods marketed in a given period or in a given number of periods are most frequently used. The resulting index numbers, called the *weighted aggregates* of actual prices, compare the total sums of money which would be spent for a given supply of goods in different periods. This type of index number escapes the criticism of being based on prices of miscellaneous units of measure.

**Index Numbers and Value of Money.** It is quite obvious that different quantities of goods are purchased by different individuals, that different quantities of different goods are purchased in different regions, and also that different quantities of different goods are purchased at different times. Therefore, any index number is to a great extent a specialized number that indicates the change in the value of money in a particular region or for a particular purpose.

INDEX OF WHOLESALE PRICES. The wholesale prices of selected commodities are weighted so that they correctly represent the portion of total expenditures made for each of the different commodities included. The weight, however, must be an average and not that for a particular region or individual unless it happens by coincidence to be the same.

INDEX OF COST OF LIVING. This index number does not represent the changes in cost to a manufacturer who buys raw materials; it indicates the changes in the cost of providing the common goods consumed by individuals. It is used extensively to indicate changes in the purchasing power or the value of money received by labor as wages.

**Usefulness.** A realization of the shortcomings of price indexes does not destroy their usefulness. Although a tool of analysis may be imperfect, this is not justification for casting it aside. Until better methods for measuring the value of money are discovered, therefore, it is necessary to employ these currently available indexes. However, they should be employed with caution, always making allowances for their inadequacy.

## SAVINGS AND INVESTMENT

A major problem of the American economy is maintenance of prices which encourage efficient production at capacity levels. The solution is most frequently discussed in relation to savings and investment and their effect on money flows to the markets where goods and services are offered for sale.

**Money Flows.** The major problem related to current *money flows* is keeping the flow correct to remove from the market the goods produced, at prices that will encourage additional efficient production. This problem would solve itself if everyone spent his income as he received it. Say's law of markets (production creates its own effective demand) assumed this to be the situation. It is now realized that this assumption is incorrect.

The major cause of the irregular flow of money is that every income-receiver has several choices; (1) he may spend all of his income; (2) he may save a part of his income; (3) he may spend not only his current income, but his past savings plus what he can borrow.

If the receivers of income should decide to save more funds than can be readily invested, it means that for a period of time these funds cannot be spent for production. The result is that the flow of money to the market to purchase goods produced will be inadequate to remove those goods at the prices required to permit production to continue. The result is likely to be deflation, unemployment, and readjustments. The readjustments will frequently result in considerable hardship and often, in addition, injection of new money into the economy.

On the other hand, the flow of expenditures may have been toward the purchase of investment goods in unusually large quantities. The quantity of investment may be so great that former levels of consumption cannot be maintained. The immediate effect of this condition will be inflationary pressures which will be relieved as the additional investment begins to provide consumer goods.

Finally the portion of the money income allocated for consumption may be so large that the funds available for investment are not adequate to maintain plants or expand production. The result is that the quantities of consumer goods fail to increase and actually decrease. The effect is long-run inflationary pressures and reduced production efficiency. In all cases these

undesirable flows of funds throw the economy out of balance and reduce its efficiency.

**Levels of Personal Income.** Chart 7 shows the trends of income available for individual disposal. Notice (1) the impressive increase of personal income and disposable income during the war and postwar period, (2) the plateau with a slight tendency to dip in the 1952-1954 period and (3) the rapid upward spurt in 1955. This expansion arose nearly entirely from higher wage and salary disbursements. The personal and disposable income levels of Chart 7 were partly both the cause and the result of the investment expenditures shown in Chart 8.

**Source of Savings.** Since 1949 net personal saving has remained relatively constant at between $15 and $20 billion, while personal income has risen from about $200 to $300 billion. These actual quantitative data show that it is not possible to rely on personal savings expanding with an expansion of personal income, as had been assumed in the theory of income and saving developed in the 1930's. In doing this, the "bogy man" of how to absorb in investment a constantly increasing percentage of personal income as incomes expanded has also been destroyed.

In the National Income Accounts savings equal investment. The concept of savings used is that of gross savings which in addition to net personal saving includes undistributed profits of corporations, corporation depreciation, and capital outlays charged to current expense, plus other less important aggregates.

With this concept of saving it is obvious that the value of machines in production and the quantity of profits withheld by the corporation are important determinants of the quantity of saving. In fact, business depreciation charges have become the most important component of saving in the United States.

The actual sources of savings in a modern industrial nation seem to make the traditional determinants of savings [(1) the size of income (the propensity to consume is such that as incomes rise consumption rises less rapidly than income); (2) the rate of interest offered for savings (a higher rate of interest makes it more worthwhile to save)] unrealistic and not very useful. However, this does not weaken the basic fact that savings can not be made without income. The necessary conclusion is that the principal cause of savings in the United States during the recent past has been the ability of the business corporation to earn huge incomes and to utilize an important portion of this income to finance investment.

In a number of countries of Western Europe and in nations

that are rapidly increasing their industrial production, savings arise largely from the ability of the government to collect more in taxes than it spends on goods and services used up during the period. This budgetary surplus on current account permits the government to finance additional investment—which means savings have been made. Another investment speedup procedure in common use in underdeveloped countries is for the government to engage in investment activities with newly created or printed money. With this money they bid goods and services away from consumers by offering higher prices. The effect is inflation and the type of savings caused is frequently (and rather correctly) given the label "forced savings."

In the United States most savings are made and used by businesses, however, some savings (business and personal) are absorbed by the net borrowing of governments. Governments invest, in the American national income account sense, only when they borrow more than they repay. This may not be the situation when they build a road or a new building, although at the state and local government level this is a very likely relationship.

Individuals invest in the American national income account sense when they build a house or purchase a new house but not when they purchase a new automobile or new furniture.

**Source of Investment.** The most vital aspect of investment is generally considered to be that made by businesses. The most important determinants of this investment are: (1) the profits expected from the investment in relation to the interest rate charged (if profit expectations are much greater than interest cost, businesses will be very anxious to invest) and (2) the movement of interest rates (because, for example, when interest rates are falling the capitalized value-selling price of an earning asset increases even though earnings remain the same).

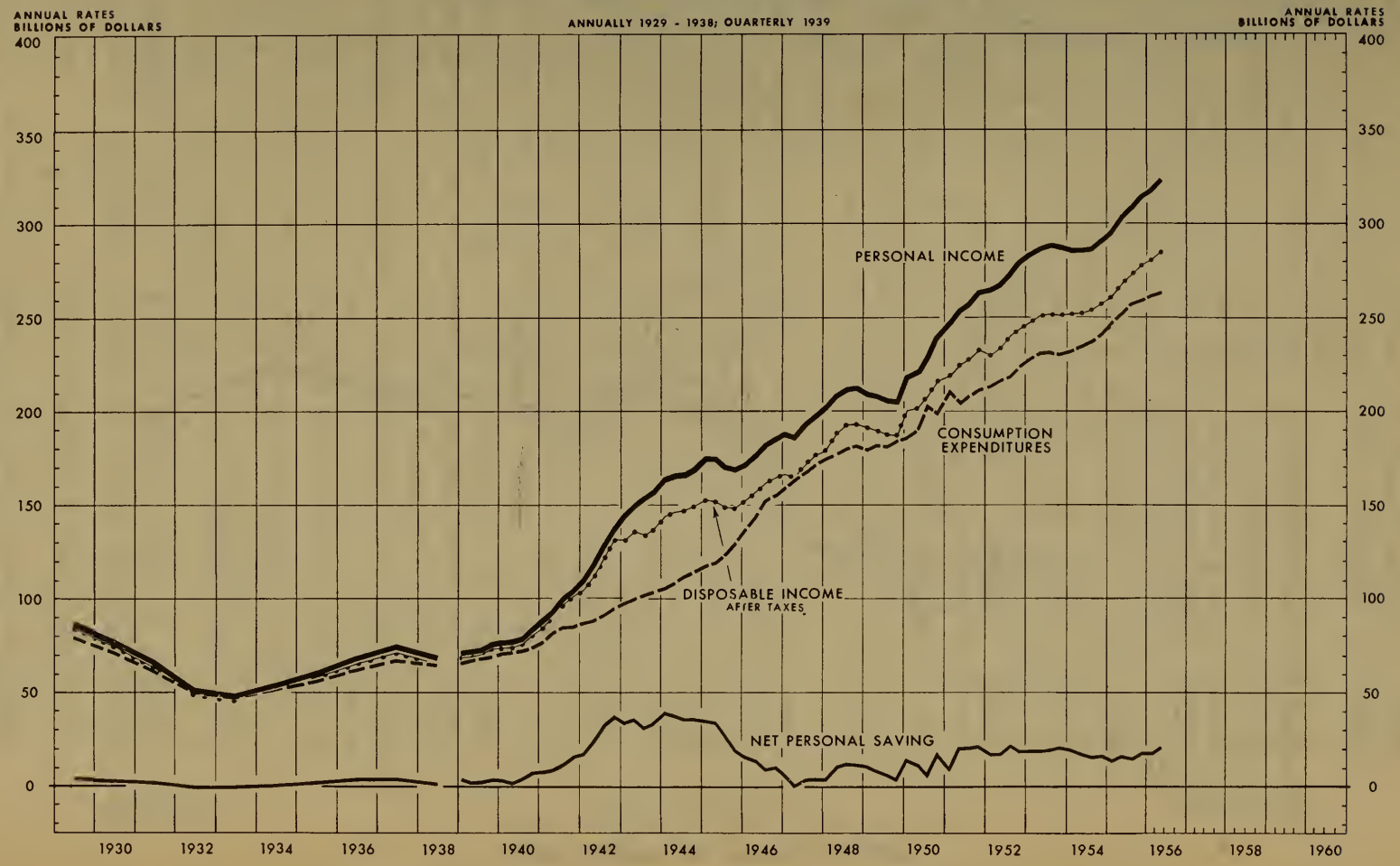
Notice that the direct impact of interest rates is on investment rather than savings. Very likely this effect of the interest rate on investment carries over to savings, but it is very difficult to trace. For example, corporations seem to save less when interest rates are high because under these circumstances the pressure for higher dividend payments is greater.

**Levels of Investment.** Chart 8 shows the actual movements of private domestic and net foreign investment for the past twenty-five years. It is of interest to notice the rather sharp decline of investment in producers' durable equipment (factory machines and the like) during the recession of 1953-54. It is also interesting to notice that investment in construction after

# CHART 7

## PERSONAL INCOME, CONSUMPTION, AND SAVING

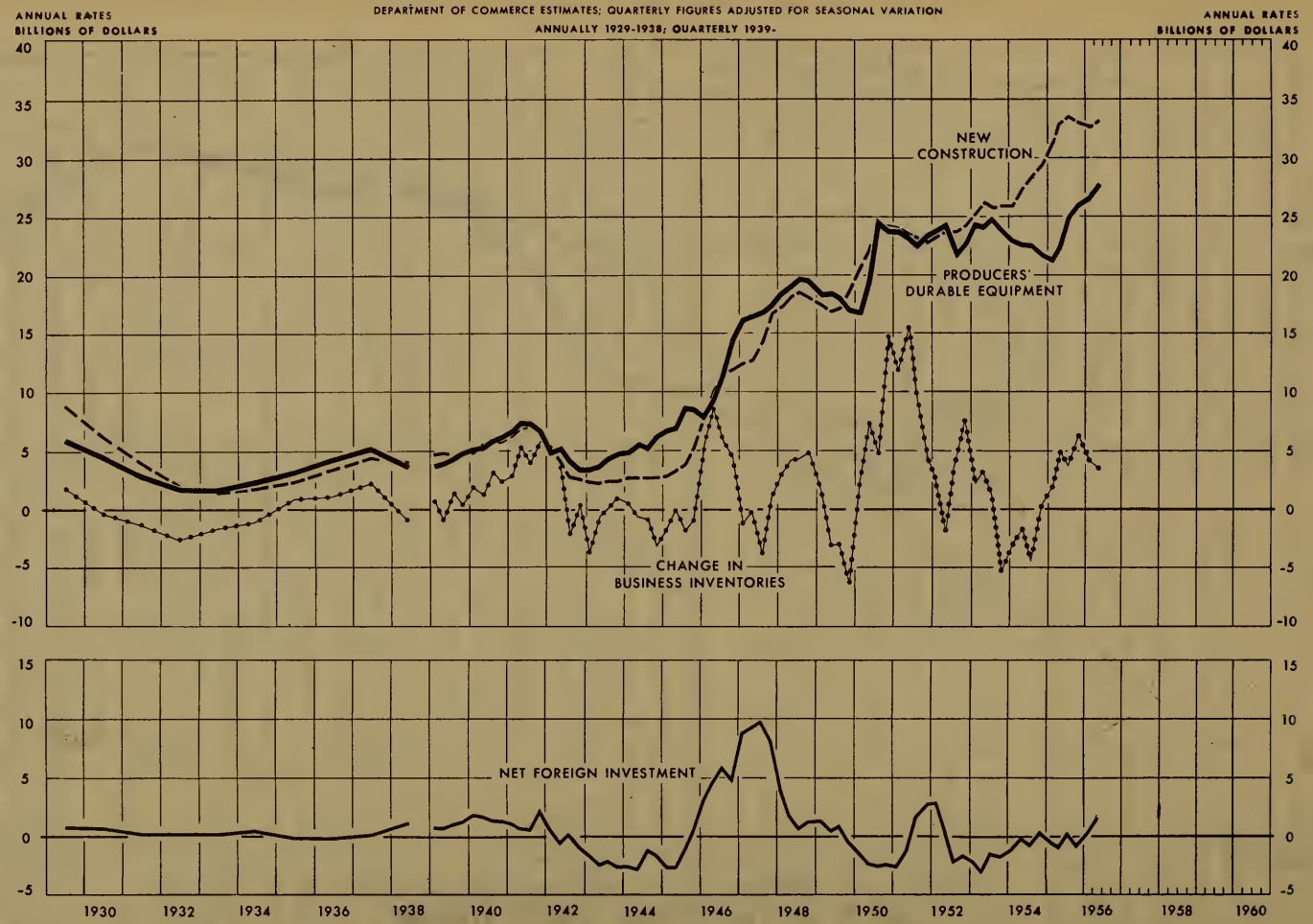
DEPARTMENT OF COMMERCE ESTIMATES, QUARTERLY FIGURES ADJUSTED FOR SEASONAL VARIATION




Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 80.

# CHART 8

## PRIVATE DOMESTIC AND FOREIGN INVESTMENT




Source: *Federal Reserve Charts*, Historical Supplement, September, 1956, p. 78.

some hesitation moved quickly up to higher levels. This rise was induced somewhat by federal government legislation which increased the period of time over which mortgages to finance new construction could be extended.

The fluctuations of investment in inventories are the most violent. Here again the relationship to the recession of 1953-54 is apparent. Notice also how both investment in inventories and producers' durable equipment began to move sharply upward in 1955-56, with the development of the great boom of that period. In late 1957 and early 1958 investment in these areas declined sharply, and the boom was over.

In the past net foreign investment has often been below zero. This is because foreigners have found investment in American securities and businesses very attractive. Thus, though America is much richer than most nations, there is a tendency for foreigners to invest more in the United States than Americans invest abroad. The data for 1956 and 1957 seem to indicate that in the future net foreign investment is much more likely to be positive.

The Federal Reserve System was established and its powers developed in the belief that if prices were maintained at stable levels, economic development and activity would proceed at the desired level. The development of the great depression of the 1930's, which arose after a period of very stable prices (with the exception of security prices) proved this assumption incorrect. Since that time, the job of monetary theory has been to set up the action framework for (1) stable prices and (2) a high and continuing level of economic activity.

Monetary theory related to the price level is largely concerned with quantitative factors, such as the amount of money, the quantity of goods available for exchange, and the like. Monetary theory related to a high continuing level of economic activity is concerned much more with the way in which money receipts and payments flow through the economy. (The basic problems of money flows were discussed on pages 37–42.)

There are three important classes of monetary theories: (1) the transaction theory, (2) the cash balance theory, and (3) the income expenditure theory.

**Transaction Theory.** The transaction type of quantity theory is most frequently summarized in the Fisher equation of exchange $P = \frac{MV}{T}$. In this equation, $P$ is the price level, $M$ is the stock or means of payment, $V$ is the velocity of circulation, and $T$ is an index of the physical volume of transactions.

This equation is often written $MV = PT$. This equation is a truism as are all equations summarizing the determination of the value of money. The usefulness of the transaction theory and other monetary theories arises largely from the selection of the factors to be considered. This selection has become the basis of the most devastating criticism of the transaction theory. It is pointed out that V is not the appropriate point of emphasis because it cannot be accurately measured and in addition its analysis does not yield particularly helpful findings. The same criticism can be levied at $T$ as developed in the transaction theory.

The equation becomes a statement that the quantity of money determines the general price level if it is accepted that the physical quantity of goods $T$ is always at capacity level (full employment) and that the velocity $V$ remains relatively constant. Also the conventional assumption of classical theory was full employment or capacity production, and the factors affecting $V$ were stated to suggest a great deal of stability; therefore it is justifiable to consider the equation of exchange as an expression of the quantity theory of money.

Relationship Between Prices and the Quantity of Money. Charts 5-A and 5-B summarize the consumer price indexes constructed by the Bureau of Labor Statistics. These indexes combined into the all-items index, which is also presented in the charts, is considered, as was previously indicated, one of the best measures of the value of money.

Two types of changes are particularly apparent in the charts. The first is the tremendous ability of World War I and II to raise consumer prices and therefore reduce the value of the consumer dollar. In addition, if these charts are compared with those showing the quantity of money (page 3), it is seen that prices moved with increases in the quantity of money during the war periods, but it is also apparent that prices in the World War II period were affected by the increased quantity of money to a much less degree than was the case during World War I.

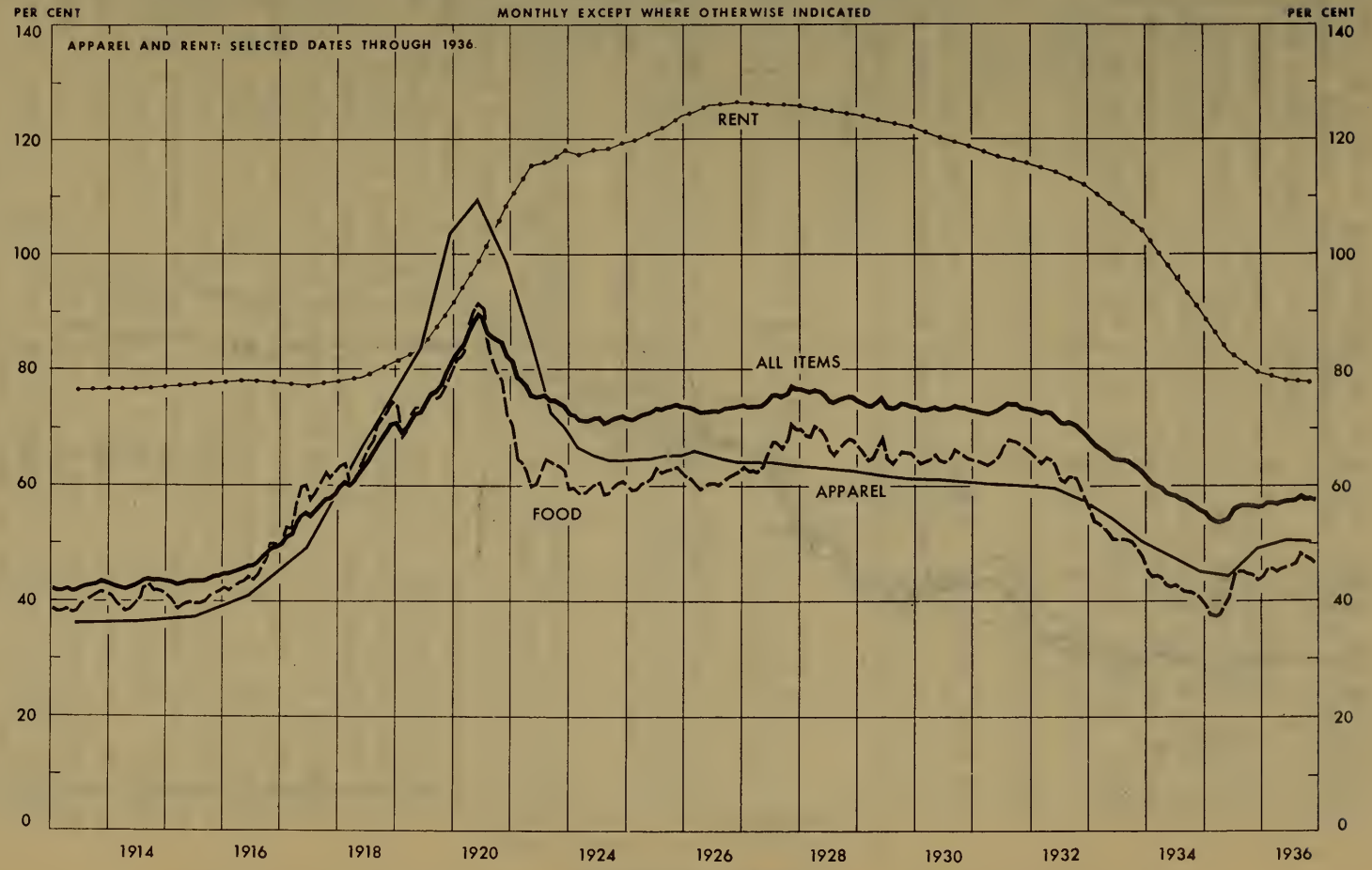
The second important apparent change is the tendency for prices to fall during periods of peace. A comparison with the quantity-of-money charts is again worth while. These charts indicate that the amount of money was expanding during the 1920's but the all-item consumer price index remained very stable and then entered into a sharp drop in 1930 that was not halted until 1933. Also, despite the fact the quantity of money was greater in 1937 than in 1929 the all-item consumer index was considerably lower.

# CHART 9-A

## CONSUMER PRICES

BUREAU OF LABOR STATISTICS INDEXES, 1947-49 = 100

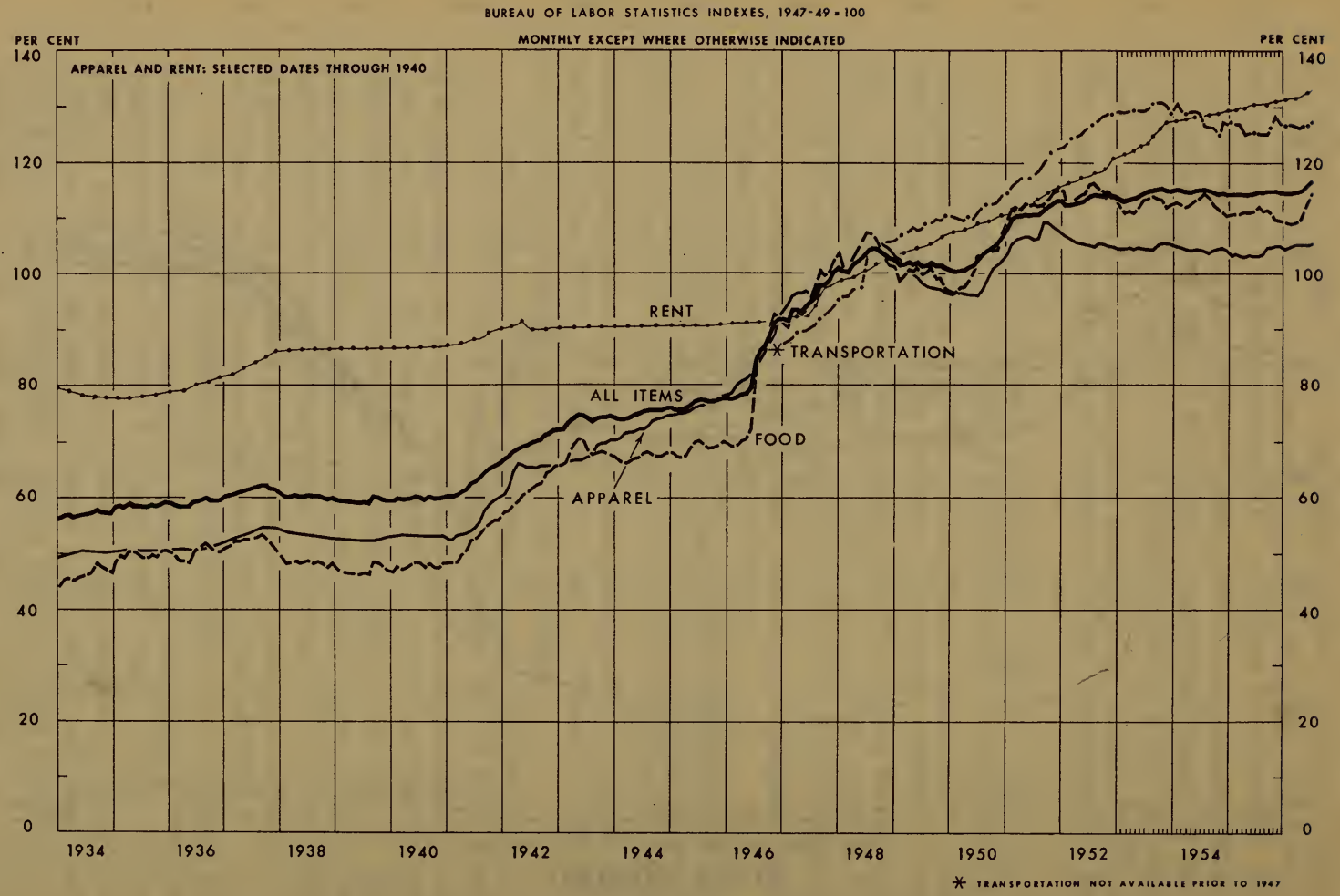
MONTHLY EXCEPT WHERE OTHERWISE INDICATED




Source: *Federal Reserve Charts,* Historical Supplement, September, 1956, p. 100.

# CHART 9-B

## CONSUMER PRICES




Source: *Federal Reserve Charts,* Historical Supplement, September, 1956, p. 101.

These observations lead to the conclusion that consumer price levels are affected by other factors than the quantity of money. A related conclusion is that the value of money, as measured by the all-item consumer price index, is only very roughly determined by its quantity.

**Cash Balance Theory.** The cash balance theory is stated in a formula rather similar to that of the transaction type of quantity theory. In the cash balance analysis the $K$ is the portion of transactions held as cash. The $K$ is the unspent margin and is the reciprocal of the $V$ in the transaction theory. Thus, $T$ multiplied by $K$ and divided into $M$ gives $P$, or in a formula, $P = \frac{M}{KT}$. The cash balance theory considered in this fashion does not aid greatly in making an analysis different from that which can be made with the transaction theory.

The similarity can be clearly shown by inserting numerical values. For example:

$$(P)10 = \left[\frac{(M)10 \;.\; 10(V)}{10(T)}\right], \text{ or } (P)10 = \left[\frac{10(M)}{(K)1/10 \;.\; 10(T)}\right].$$

The important difference is the change of emphasis. The emphasis of the transactions theory is on speed of expenditure, and that of the cash balance theory is on the quantity of cash holdings.

EMPHASIS OF THEORY. The cash balance theory emphasizes the demand for money as cash rather than the demand for money to complete transactions. The amount of cash that people are willing to hold is determined by a number of motives. The more important of these are: (1) the income motive, (2) the business motive, (3) the precautionary motive, and (4) the speculative motive. (See page 144.) These motives are important not only in determining the amount of cash in the sense of bank notes and demand deposits but also in determining the type of asset in which funds will be invested. In the United States today, for example, the liquidity that a person enjoys in holding government savings bonds is practically as great as that which he holds if he happens to have a demand deposit. In the cash balance theory, therefore, federal government savings bonds should be considered money. Also, any determination of what is cash for purposes of economic analysis results partly from what is generally considered cash as well as the characteristics of the item. Actually a fundamental problem of both the transactions and the cash balance theories is the definition of money and/or cash balance.

**Income-Expenditure Theory.** The income-expenditure theory is the final monetary theory possessing a wide acceptance. The theory can be stated in the formula $P = \frac{Y}{O}$. In this equation, $P$ is the price level, $Y$ is money outlay (which produces a flow of income), and $O$ is the physical volume of goods and services produced. The theory simply states that when money outlays increase more rapidly than output, prices tend to rise. If on the other hand, $O$ increases more rapidly than $Y$, $P$ may be expected to fall.

FACTORS AFFECTING $Y$ AND $O$. Obviously the size of money outlays is affected by such factors as the quantity of liquid assets, the ability of money to circulate rapidly, and the demand to hold cash balances. However, these factors are not considered of key importance, and many other considerations may enter to restrict or expand $Y$ and also to affect $O$. Examples of factors influencing $Y$ are the number of marriages, birth rate, degree of competition, type of tax system, and a great list of effects sometimes placed within the group terms "anticipations" and "surprises." $O$ is in turn influenced by a wealth of factors ranging from government power-development programs to labor union policy regarding hours of labor.

ADVANTAGES. The great advantage of the income-expenditure approach to monetary theory is that its use requires continuous examination of the changes in the desires, aspirations, and wants of large portions of the population. The income-expenditure approach leads to economic laws that are stated in terms of how human beings act. This approach to economics substitutes basic economic motives and drives for the previous mechanical adjustments that were required to cause changes based upon a particular set of assumptions.

**Summary.** These three theories are summary statements of the factors to be considered when attempting to determine the value of money. In the past, theories that explained the value of money were considered very important because it was believed that if the value of money (prices) could be controlled, economic problems would be largely solved. It is now fully realized that the problems of economic fluctuations are not so readily met. The great emphasis at present is on maintaining full employment; as a result during recent years monetary theory has been related to this goal as well as to that of price stability. This trend is indicated by the income-expenditure theory, and by the previous discussion of liquidity trends and savings and investment on pages 37–42.

# QUESTIONS and ANSWERS

**Questions:**

1. What is the state theory of money?
2. What is the usefulness of the equation of exchange?
3. What is the quantity theory of money?
4. What is liquidity preference?
   See discussions on pages 37–42.
5. What determines liquidity preference?
6. What are the principal types of credits that are sufficiently liquid (possess sufficient moneyness) to fulfill some of the functions of money?
   See discussions on pages 37–38.
7. How does federal government borrowing affect the liquidity of individuals?
8. Why does a reduced ability to absorb savings tend to reduce the size of the national income?

**Answers:**

1. The state theory of money is that money obtains all or a large portion of its value, and therefore its power over goods, because the government of a nation has passed legislation declaring it to be legal tender. It teaches that the value of *fiat* money is entirely or largely determined by its possession of the power of legal tender. This theory of the value of money was propounded and received its widest acceptance in Germany. It is the direct opposite of the commodity theory of money, and is incompatible with economic monetary theory.

2. The equation of exchange is frequently called an algebraic statement of the quantity theory of money. This is not correct, for the quantity theory of money assumes that price changes are caused by changes in the amount of money, while the equation

of exchange makes no such causal statements. The equation does not indicate that changes in the quantity of money cause price changes or that price changes cause changes in the quantity of money. The equation of exchange is useful only in providing a framework around which pertinent data concerned with the level of prices can be analyzed. It also indicates important factors that must always be considered in determining the cause of price changes.

3. The quantity of money theory in the strict sense holds that a 10 per cent increase in the amount of money will cause a 10 per cent rise in prices, and that a 10 per cent decrease in the quantity of money will cause a 10 per cent fall in prices. The theory stated in a modified form is called the Fisher equation of exchange. This theory holds that other factors affecting prices change so slowly that analyses based entirely on movements in the quantity of money are sufficiently accurate to provide a sound basis for considering monetary policy.

4. It is the desire of people to hold wealth in the form of cash and liquid assets in preference to other forms. This preference and the supply of money determine the *interest rate* in Keynesian theory.

5. Keynes in his *General Theory* wrote that liquidity preference is determined by three motives: (1) the transactions motive, the need for cash to carry out efficiently business and personal transactions; (2) the precautionary motive, the desire to hold a certain portion of total resources in cash to meet contingencies which might arise; and (3) the speculative motive, the desire to have cash to be used to make a profit by knowing better than the market what future prices will be.

In addition to the three motives of Keynes, it appears that the following additional factors affect liquidity preference: (1) the period of time during which the present income has been received; (2) the types of goods offered for sale; (3) the relationship between present income and expected future income; (4) the rate of interest prevailing on the market; and (5) the absolute size of existing national income.

Although the terms *liquidity preference* and *cash balance* are closely related, liquidity preference actually refers to the reasons why a certain size cash balance is held rather than to the size of the balance.

6. The following is a list of various evidences of wealth which fulfill some of the functions of money, classified into broad groups according to their moneyness:

a. Basic or reserve money
   Gold (and to a limited extent silver)
   Deposits with Federal Reserve banks
   Currency (coin and paper money) in banks
b. Current media of exchange
   Currency (coin and paper money) in circulation
   Demand deposits in banks
c. Other liquid claims
   Time and savings deposits in banks and savings bonds
   Credit balances with brokers and other financial or commercial establishments, payable on demand or after short notice
   Open lines of credit with banks or merchants which represent potential purchasing power
   Highly liquid credit instruments, generally marketable without loss of principal, such as bankers' acceptances, Treasury bills, and brokers' loans
   Shares in savings and loan associations, credit unions, and similar organizations, and cash values of life insurance policies
   Readily marketable securities, actively traded in and easily salable, generally at little variation in price.

7. Federal government sale of securities to commercial banks causes an expansion of deposits (after commercial bank excess reserves have been exhausted). As the federal government spends these funds, individuals will exchange their control over goods and services for title to federal government deposit balances. The effect is an expansion of individual liquidity.

If the federal government bonds are sold to individuals and purchased with accumulated cash savings, federal government borrowing results in a slight direct reduction of individual liquidity and a dollar for dollar reduction of bank reserves. The over-all effect of federal government borrowing from individual savings is to reduce liquidity. Borrowing through short-term low-interest-rate securities, sold mainly to commercial banks would expand liquidity much more than if longer-term higher-interest rate securities were used, which would be attractive as individual and corporate financial investments.

8. Current economic theory usually associated with J. M.

Keynes teaches that as the national income expands, the quantity of savings expands even more rapidly. If these savings do not immediately find real investment opportunities or if new funds are not injected, the money outlays during the next period will be reduced and the result will be a lower national income. The economic data gathered during the 1930's were the basis for this assumption. The interrelations between savings and income during the 1950's lend considerably less support to the assumption.

However, if at any time there is an expansion of efforts to save without an equivalent increase in the use of savings to buy goods and services, national income will decline; and the reserve tendency will cause national income to increase.

# Chapter 8

# PRIVATE CREDIT INSTITUTIONS OTHER THAN COMMERCAL BANKS

**Savings Banks.** Almost all savings banks are mutual savings banks. There are only about 550 of these specialized savings banks, but most commercial banks have savings departments. These savings departments of commercial banks are managed like any other portion of a bank corporation, and policies are determined by the corporation's board of directors. The major function of savings banks and savings departments of commercial banks is to convert the savings of a large number of low- and medium-income-bracket persons into investments. These investments may be government bonds and they frequently are. They also, however, may be commercial bonds, mortgages, and the like. The typical investments are nonspeculative and long-term.

The total time deposits of commercial banks are about $58 billion (1958), and the total deposits of mutual savings banks are slightly more than $32 billion (1958) for a $90 billion total. The total of bank time deposits includes large deposits that are not strictly savings but rather that are liquid funds which a corporation or individual does not require at the moment. The tendency to utilize time deposits in this fashion has arisen partially out of the legal prohibition of the payment of interest on demand deposits.

**Mutual Savings Banks.** Mutual savings banks are by far the most important specialized savings institutions. Some states authorize stock savings banks but they are of no importance. These mutual savings banks receive large numbers of small deposits and invest in real estate mortgage loans, federal gov-

ernment bonds, railroad bonds, state, county, and municipal bonds, public utility bonds, federal government guaranteed bonds, a few loans other than real estate and small amounts in industrial bonds, corporate stocks, and foreign securities. They are managed by self-perpetuating boards. On the whole the management has been of a high order.

The assets of savings banks are largely long term (over 5 years), but savings banks must be ready to pay off depositors within a month or less. To meet this situation a number of developments have become important:

1. Mutual savings banks have increased their holdings of federal government bonds. These holdings may be immediately turned into cash to meet the demands of depositors.

2. Savings banks are permitted to join the Federal Reserve System (this has always been true of savings departments of commercial banks). The liberalization of Federal Reserve rediscount eligibility rules makes possible quick expansion of cash in time of need.

3. Mutual savings banks may become members of the Federal Home Loan Bank System and the Federal Deposit Insurance System. These give depositors additional assurances of liquidity.

**Postal Savings System.** The postal savings system is a borderline institutional arrangement. The savings plan is administered by the Post Office Department, under the provisions of federal legislation which provides that the postal savings system may not enter into lending activity. The funds of the system must either be redeposited in private banks or used to purchase federal government bonds. It is therefore, on the deposit side a public credit institution in competition with private institutions but, on the lending side, an organization that makes funds available to commercial banks for private lending if the commercial bank is willing to pay 2½ per cent annually for the funds.

The postal savings system was established in 1910. Its principal purpose was to re-establish the confidence of savers after the panic of 1907. The system pays 2 per cent interest on deposits, which may not exceed $2,500 excluding the accumulated interest ($1,000 additional may be deposited without interest rights). The establishment of the FDIC has to a great extent removed the need for the safety provided by the postal savings system to small savers. However, the postal savings system still serves the useful purpose of preventing private institutions from eliminating interest payments on the monetary

accumulations of small savers. Its total of deposits has been gradually decreasing and is now (1956) below $2 billion having fallen steadily from a high of $3.4 billion in 1947.

**Consumer Credit Institutions.** A large portion of consumer credit is extended directly and indirectly by the commercial banks. In addition, a number of specialized consumer credit institutions have developed. In most cases these specialized institutions deal directly with the consumer in granting the credit, and with the commercial bank in obtaining at least a portion of the funds loaned.

Specialized consumer credit institutions have been developed to provide credit suited to the specialized needs of consumer borrowers. The well-recognized special features of consumer credit are: (1) sums borrowed are small, (2) borrowers are relatively unknown by the lender, (3) administrative cost is high, and (4) the loan is not directly related to the expansion of earnings.

PERSONAL LOAN COMPANIES. Personal loan companies are privately owned companies operating under state legislation. They grant small loans that are usually to finance (1) the purchase of durable consumer goods, (2) the costs of an emergency, or (3) the repayment of a number of small debts. The loans are extended for a period of less than two years.

Personal loan companies have become numerous and are frequently regulated by the provisions of the *Uniform Small Loan* Law developed by the Russell Sage Foundation and adopted by many state legislatures. They usually are not included under the regular state bank legislation. The provisions of the Uniform Small Loan Law exempt these companies from most usury law restrictions and instead permit a maximum rate of 3 to 3½ per cent a month. These higher rates are justified by (1) the greater risk and (2) the overhead costs of this type of lending.

Most loans extended by personal-loan companies are secured by furniture, automobiles, wage assignments, or by a co-maker who is responsible for repayment along with the borrower. Because of the abuses that frequently arise in this type of lending, most state legislatures license personal-loan companies and the state banking department supervises them. Also, the borrower must be given a contract, which he signs, that plainly sets down the conditions of the loan agreement. Finally, wage assignments are typically enforceable only up to 10 per cent of the borrower's salary.

MORRIS PLAN BANKS. Morris Plan banks (called industrial

banks because they were originally organized to make consumption loans to industrial workers) were forerunners of the development of good consumer credit facilities in the United States. The plan was inaugurated in 1910 in Norfolk, Virginia, by Arthur J. Morris, an attorney. The principles of the plan were adopted from the cooperative industrial banking that had developed in Europe.

Morris Plan (industrial) banks (most of them have now dropped the term Morris Plan) grant personal loans to individuals possessing a good credit rating. The additional security required is co-makers, or durable consumer goods or real estate put up to guarantee repayment. In addition these banks finance installment sales by purchasing installment buyers' promissory notes from retailers.

The distinctive feature of this type of banking is that the funds loaned are largely obtained from the sale of investment certificates rather than from primary deposits. These certificates are sold to investors and other banks desiring a high-grade asset. The borrower repays his loan by purchasing investment installment certificates in small weekly amounts. When one half the price of the certificate has been paid they begin to draw interest at the rate of 4 per cent. The rate of interest charged is usually 6 per cent annually of the face amount of the loan, which makes a real rate of about 12 per cent. This higher real rate arises because if the loan is repaid in equal installments only about one-half the amount of the loan is owed throughout the entire period. This rate is reduced by the interest received on the certificates but it is increased by an investigation charge that is also assessed. The rates, however, are generally lower than those of the personal loan companies. These industrial banks are regulated by state banking regulatory agencies.

OTHER CONSUMER CREDIT INSTITUTIONS. *Loan sharks and pawnbrokers* have been providing small loans since the beginning of written history. This consumer lending is usually of the emergency type and is not a part of the modern consumer borrowing that has arisen from the expansion of durable-goods consumption. The loans of a loan shark are usually outside the legal provisions for legal lending. The pawnbroker is frequently a licensed businessman who makes small loans to individuals who sell him an article under an agreement that the borrower can repurchase the article at an agreed higher price at a later date.

*Credit unions* are cooperative organizations chartered by the state or the federal government. The organization was first

established in Germany. The first American credit union was established in New Hampshire in 1908. The modern American development arose largely through the pioneer work of the Twentieth Century Fund. Federal legislation providing for credit unions regulated by the federal government was passed in 1934.

A credit union provides facilities for members to deposit their savings and for the union to lend these funds to members wishing to borrow. The loans are extended at a lower interest rate than most consumer lending. This is possible because members of a credit union are usually employees of a single plant or residents of a single neighborhood, which reduces investigation and collection costs.

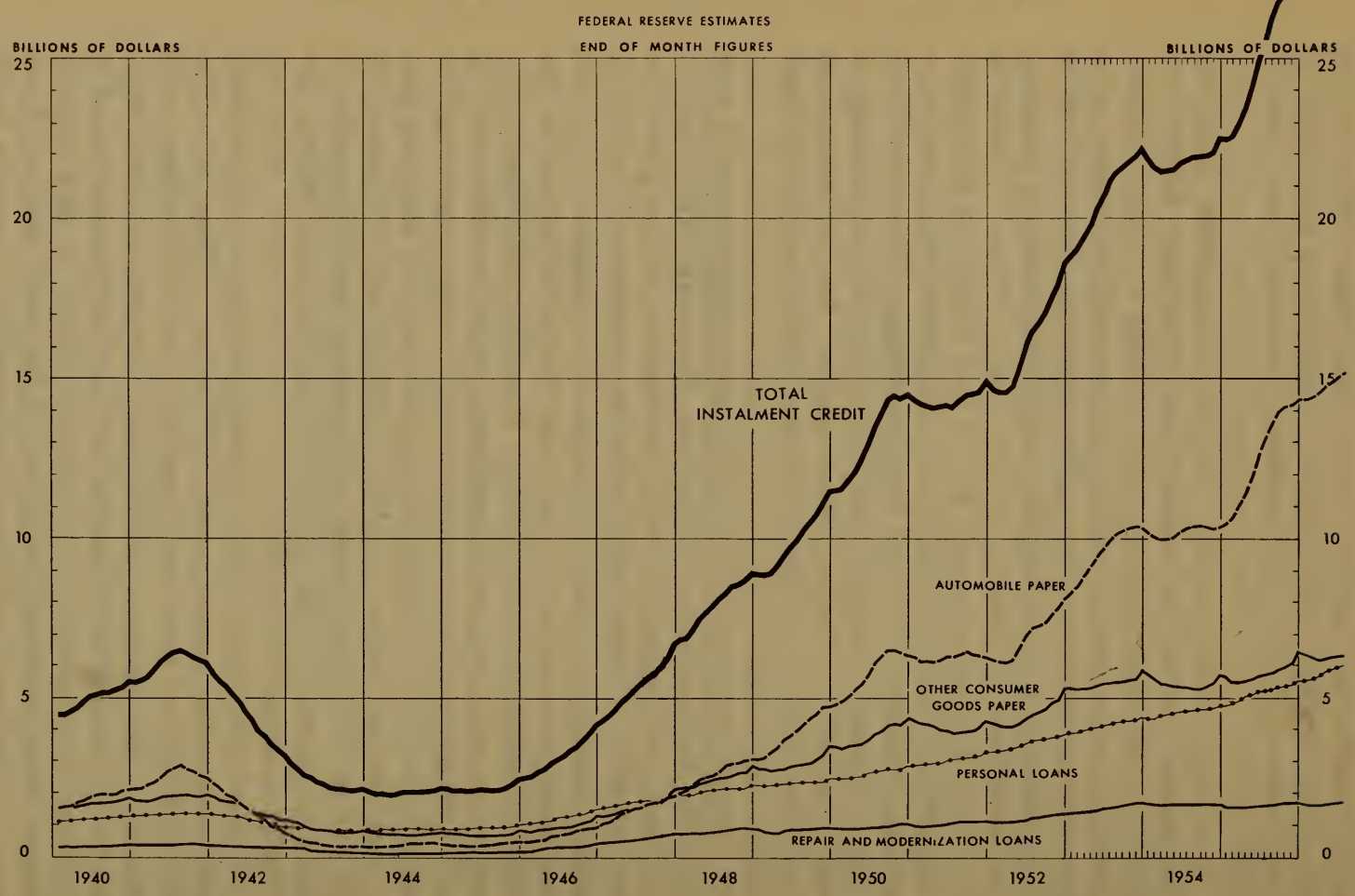
*Sales finance companies* do not lend directly to consumers. They engage in the purchase of installment notes and other consumer credit instruments from merchants. The activities of these companies are particularly important in the financing of wholesale and retail sales of automobiles. Some of these companies are affiliates of manufacturers; this is particularly common in auto finance.

CONSIDERATION OF THE ECONOMICS OF CONSUMER LENDING. The large volume of consumer borrowing other than for the finance of housing is a new phenomenon. It developed during the 1920's with the expansion of the manufacture and sale of durable consumer goods. The increased importance of durable consumer goods and consumer credit has provided another element of instability in the economy. Consumer credit makes possible waves of consumer expenditures similar to the waves that had formerly been apparent only in business investment expenditures. Chart 10 shows that from the low in 1945 there has been a continuous and rather rapid rise through the 1955 period. By the end of 1955 the quantity of consumer credit was over six times as great as at the end of 1945 and was still rising. The increase continued until 1958.

Since the end of 1945 consumers have increased their indebtedness by approximately $33 billion (Chart 10). The effect of this has been very large purchases of durable goods; and if the total remains at this level, consumers will be paying out annually about $4 billion in interest charges, and therefore reducing their possible purchases of goods by this amount. Instead they purchased $4 billion of financial services. However, if consumer credit does not continue to increase in the next ten years, durable-goods purchases will be down by much more than could be purchased with the interest payment savings.

# CHART 10

## CONSUMER INSTALMENT CREDIT OUTSTANDING BY MAJOR PARTS




Source: *Federal Reserve Charts,* Historical Supplement, September, 1956, p. 71

Put another way, consumers have purchased $33 billion more of goods than they wished or could pay for at time of purchase. This has brought about $33 billion of borrowing. If it is assumed that the amount of installment credit remains relatively constant, consumers in the next period will have to finance the total of consumer purchases from available income and savings. This will cause a reduction of the value of goods and services sold and produced during the next period, which will tend to reduce disposable incomes and thus set the stage for a downward spiral of the level of economic activity.

The Federal Reserve System has requested again in 1956 that its power to control consumer credit be restored and made permanent. In the light of the cyclical importance of consumer credit this appears to be a reasonable request.

**Investment Banks.** Investment banking largely performs the function of middleman between those who wish to obtain funds and those who have funds for investment. Investment activity is also carried on by institutions such as trust companies, mutual savings banks, and investment trusts. These institutions perform the function of an expert who aids an individual in the investment of his savings. Another category of investment institutions comprises those enterprises whose primary function is writing insurance or carrying on some other operation not directly and immediately concerned with investment of money.

Security middlemen make their profits out of the differences between the prices which they pay for securities and the price at which they sell securities. They may do either or both a wholesale and retail business. It is considered wholesale if the dealer originates, alone or in a syndicate, an entirely new security issue. It is considered retail if sales are made directly to individual or institutional buyers. Because of the great risk of market prices of securities going down and the small margin of profit, speed of sale is the essence of successful operation. The speed of sale of new issues has been slowed by the necessity of meeting the requirements for registration and public sales established by the Securities and Exchange Commission.

The typical investment institution employs a corps of salesmen to call on prospective buyers and also provides general expert statistical and economic advice to customers. For obvious reasons the better institutions separate the advisory from the selling function. The important economic function (allocation of savings) of the security middlemen (investment banker) will be performed more efficiently as a greater portion of their activities are based upon competent research and less upon

high-pressure sales methods. The introduction of active federal intervention in 1933 and 1934 has encouraged a trend in this direction. The investment institutions that give careful consideration to the economic soundness of new issues offered and sold have recently enjoyed a relatively greater degree of success.

**Stockbrokers and Dealers.** The primary market for securities is tapped by the investment banks and the life insurance companies (see page 157). The secondary market is utilized by the investment banks to sell the securities to the public which the investment bank is committed in the primary market to purchase from the corporation at a fixed price. The secondary market is also used to buy and sell seasoned securities (securities that have been outstanding for some time).

The secondary securities market consists of the activities of (1) about 4,000 dealer-brokers doing a sufficiently national business to require registration with the Securities and Exchange Commission and (2) an unknown number doing a local business. The market in which these dealer-brokers operate consists of both organized security exchanges like the New York Stock Exchange and the over-the-counter market where buying and selling prices are established by telephoning prospects.

**New York Stock Exchange.** The members of the New York Stock Exchange own "seats" which have a value arising from the prestige of being a seat owner and also from the commissions on trading going to seat owners. A seat must be purchased from its present owner, and the purchase must be approved by a two-thirds vote of the members of the board of governors of the Exchange at a regular meeting. The rules of the Exchange require that all members maintain fair and orderly practices.

For any security to be listed on the "Big Board," it must have been seasoned, and its distribution must be sufficiently wide to avoid the possibility of manipulation. Also, all records requested indicating the operations of the company must be provided and approved by the Securities and Exchange Commission.

Prices on the floor of the Exchange are established by competition among various buyers and also among various sellers—the double-auction method. The market is very highly organized and active, which causes the spread between bid and asked prices to be very narrow.

**Trust Companies and Bank Fiduciary Services.** Trust companies have been organized because the fiduciary (hold in trust) needs of the community could be performed more effi-

ciently by a corporation with perpetual life than by an individual. Most trust companies are departments of commercial banks. However, in some areas of the west, trust functions may not be performed by banks of deposit. Although trust activities are now closely associated with commercial banking, their early development was more closely related to life insurance.

PERSONAL TRUST ACTIVITIES PERFORMED. The modern trust company frequently engages in a great variety of activities, of which only those of a fiduciary nature are distinctive trust company activities.

The most distinctive and often most important function of a trust company is administration of wills or other voluntary agreements which place the handling of a certain amount of funds into the hands of the trust company. These are voluntary personal trust agreements. Those established by a person who is also a beneficiary are called *living trusts.* Trust companies are also frequently appointed by the court to administer the property of persons who have been declared incompetent to handle their own financial affairs.

CORPORATE TRUST ACTIVITIES. Corporate trust activities are usually related to the issuance and trading of securities and the reorganization of corporations. This type of trust activity is conducted largely in the great financial centers, principally New York City. Corporations in need of funds pledge certain capital as the security supporting a bond issue. This pledge is made out to a trust company. Trust companies also keep the records showing the ownership of the corporation's stock and bonds. In addition trust companies hold property of the corporation while a voluntary new financial plan is being created, or during a period of reorganization following bankruptcy. Finally, trust companies frequently pay the interest on the securities of the corporation. This is very natural, for the trust company is likely to possess the names and addresses of the security owners.

Prior to 1913 all trust activities were performed by state chartered and regulated institutions. Since 1913 the national banks, which are chartered and regulated by the federal government, have been permitted to transact trust and fiduciary business and to use the word "trust" in their names.

**Savings and Loan Associations.** The modern savings and loan association is actually a savings bank organized as a stock company. Deposits or share purchases are accepted from anyone and can be withdrawn at any time (a 30-day delay is provided in the contract but is not requested), and the funds are

invested in government and industrial bonds as well as in loans on urban residential real estate.

EARLY ASSOCIATIONS. The original savings and loan associations were temporary home-builders' clubs that operated as mutual or cooperative organizations. The members agreed to pay a certain amount each month, and the funds so obtained were used to finance construction or purchase of houses. Borrowers gave the associations mortgages on their homes and made monthly payments until the mortgages were retired. These clubs later became permanent but still operated on this restricted principle. Many continue to operate in this fashion, but the savings bank procedure is definitely the modern trend.

DIFFICULTIES. Savings and loan associations suffered serious losses during the depression of the 1930's through the general economic conditions which caused great reductions in real estate values. In most cases, however, they were able to continue in operation and have experienced a great boom in activity during the post-World War II period. Since 1948 they have been more successful in attracting additional savings than savings departments of commercial banks or mutual savings banks.

LEGISLATION OF THE 1930's. The Home Owners Loan Act of 1933 provided for the Federal Savings and Loan Associations. Prior to this time all savings and loan associations possessed state charters. The activity of the federal associations grew very rapidly despite the prohibition of accepting deposits. The purchase of shares has been arranged so that to the depositor, legally a shareholder, the inconvenience is slight. All federal associations must insure their accounts with the Federal Savings and Loan Insurance Corporation which was established in 1934. State associations may also utilize this insurance which corresponds to the Federal Deposit Insurance Corporation in the banking area. Total savings are now (1958) in excess of $48 billion and have been increasing by between $3 billion and $6 billion a year.

## Life Insurance

The purchase of life insurance is partially savings because in order to avoid rising premiums as the policyholder becomes older, most life insurance is sold on a "level premium" basis. Because the risk of death becomes greater as age increases, the early premiums are much higher than is needed to meet actual risks. The excess payment, called reserves, is in effect the insured's own savings, which the company reinvests.

Life insurance enables persons with dependents to protect these dependents against financial difficulties in case of their death. The purchase of an annuity-type life insurance policy provides a method of assuring the policyholder an income in old age and after retirement; and the purchase of an endowment policy assures the policyholder of a fixed lump sum after a given number of years, or a cash payment to his beneficiaries.

**Life Insurance Companies.** The assets of life insurance companies have now risen to over $97 billion (1957), which makes their assets second only to those of the commercial banks. These assets, which consist largely of business securities other than common stocks ($42 billion), mortgages ($34 billion), and government securities ($11 billion), are held by about 600 different companies, many of them doing a nation-wide business.

Life insurance funds have been used extensively in the 1950's to assist businesses in meeting their needs for external financing to cover the costs of record expenditures for plant and equipment. In performing this service, life insurance companies have in many instances replaced investment banks.

In their constant search for high-earning yet safe investments, life insurance companies have branched out into the direct ownership of developmental real estate projects. Also, they have exerted considerable pressure for the relaxation of state legislative restrictions which prevent life insurance companies from investing in common stocks. Recently they have had some success in this direction; New York in 1951, for example, began to allow life insurance companies to invest in selected common stocks up to 3 per cent of their total assets.

**Savings Bank Life Insurance.** In a number of states the services offered by savings banks and other financial institutions include low-cost life insurance. In New York, for example, 1938 legislation permits mutual savings banks to sell insurance policies up to $1,000 per bank; a single individual may not purchase more than a total of $5,000 of this type of insurance. Similar programs are in operation in both Massachusetts and Connecticut.

The purpose of this type of "over-the-counter" sale of life insurance is to reduce the cost of insurance. Recently the idea has gained in popularity, and the 81 savings banks engaged in the activity plus the leaders in the savings and loan business have shown considerable interest in developing the program.

There are now more than 500,000 savings bank life insurance policies in force with an average size of $1,000.

# QUESTIONS and ANSWERS

**Questions:**

1. What are the mechanics of an FHA-insured mortgage loan application?
2. What are the principal types of brokers and dealers, and what are their principal functions?
3. Why did the mutual savings bank not develop as a nation-wide type of savings institution?
4. What are the principal types of security transactions, and what are the basic characteristics of each?
5. What was the purpose of the Securities Act of 1933 and the Securities Exchange Act of 1934? Have they achieved this purpose?
6. What are investment companies? Why have they been so successful recently (1956)?
7. What are the principles of management of a trust department of a commercial bank?
8. What are the principal regulations governing lending by federal-chartered savings and loan associations?

**Answers:**

1. Anyone who desires an FHA-insured loan applies for a mortgage loan; he may obtain the necessary application forms from any FHA-approved lending institution. After he has completed the forms, an officer of the lending institution sends them to the local FHA office for approval. The staff of the FHA office checks the credit standing of the borrower, and the FHA-appraiser examines the house that is to be mortgaged to determine the likelihood of its retaining a value greater than that of the loan during the period of the loan.

In case of a loan on a newly constructed house, the FHA will usually not insure the lender against loss on advances made

during the course of the construction of the house. However, the FHA will give a commitment to insure the loan if the house is constructed according to plans and specifications that have been previously presented to FHA and approved. The loan is actually insured only after the construction of the house has been completed.

After FHA has agreed to insure a loan, the lending institution draws up the necessary papers; the loan is handled like any other loan, and when closed, the FHA sends the lender an FHA insurance certificate covering it.

2. (a) Floor brokers. Floor brokers must have a seat on the exchange, but they may be either independent brokers or members of a stock-brokerage house. Independent brokers are sometimes called $2 brokers because the commission they previously earned was $2 on each 100 shares. As their name indicates, floor brokers operate on the floor of the exchange, and they execute orders to buy or sell securities.

(b) Floor traders. Floor traders take a position and do not confine their activity to executing orders as do floor brokers. Floor traders also operate on the floor of the exchange; they absorb securities long in supply and agree to furnish securities short in supply. By performing this function, they reduce temporary fluctuations in the prices of securities.

(c) Odd-lot dealers and brokers. Odd-lot dealers and brokers buy and sell securities in odd lots, e.g., one to ninety-nine shares. Odd-lot brokers and dealers execute their orders on the floor of the exchange.

(d) Over-the-counter dealers and brokers. In terms of the quantity of business and the number of dealers and brokers, this is a more important market than that of the organized exchanges. Originally, transactions were actually made over the counter—hence the name; now, however, it is largely a "wire" market. As this market does not have a board on which quotations are combined into an offer, much of the work of making a market is performed by the dealers and brokers making quotations to one another. In addition, a private organization, the National Quotation Bureau, will by arrangement make quotations available for a fee. Much of the activity in this market is concerned with U.S. government and municipal securities and highest-grade railroad and industrial securities, and trading of speculative-type securities is of lesser importance.

(e) The bond crowd. These are brokers and dealers spe-

cializing in bonds. Most of their activity is off the exchanges; but on occasion, they send orders for the execution of sales or purchases to the floor of the exchanges.

The bond crowd is divided into four sub-crowds: (1) The active or free crowd, who conduct their business like brokers or dealers in stocks; their unit of bond trading is $1,000. (2) The inactive book or cabinet crowd, who deal with bonds designated inactive by the exchange; they place their offers in a book or a file under the jurisdiction of an employee of the exchange. (3) The foreign crowd, divided into an active and an inactive crowd, who deal in foreign bonds. (4) The government crowd, who deal in United States government bonds.

3. The mutual savings banks along the Eastern seaboard developed prior to the development of savings departments in commercial banks and savings and loan associations. After 1900 they met increased competition from these institutions in their efforts to expand operations into the mid-West and far-West. Although there are mutual savings banks in seventeen states, most of their resources are concentrated in only about a half-dozen states.

4. Cash transactions. They are fully reflected in the customer's account in the brokerage office; his balance increases by the full amount of a sale and decreases by the full amount a purchase. The customer owns and pays for the securities traded.

Margin transactions. In these, the customer makes an arrangement with the broker or dealer to lend a portion of the cost of the security purchased. The maximum portion which may be borrowed from a broker or dealer is established in Regulation T issued by the Federal Reserve Board. At the time this is written (1958), 50 per cent of the cost of the security may be borrowed from a broker or dealer; i.e., the margin requirement has been set at 50 per cent.

Short sales. A short sale is a sale of borrowed securities with a promise that the securities will be returned at a later date. This type of sale is made in expectation of a decline in the market, if the decline materializes it will be possible to replace the securities at a lower price and thus earn a profit.

There are three types of short sales: (1) flat—the lender of the securities is paid the market value of the securities; (2) at a rate—the lender of the securities pays the borrower of his securities an interest rate on the funds received and (3) at a premium—the borrower pays the lender of the securities a

premium in addition to the market value of the securities; "at a premium" is the reverse of "at a rate."

Puts and calls. A put is an option to sell a certain number of securities at a set price within a given period of time. The seller of the option receives a certain amount for granting this option. The option is usually granted by a securities dealer and at below the market price.

A call is an option to buy. The price stated in a "call" is usually above the market price and is usually granted by securities dealers upon the receipt of an agreed-upon amount.

5. The primary purpose of these two acts was to prevent (1) fraud and (2) the manipulation of the market value of new and untraded securities. Considering the number and types of cases which have been brought before the courts since the passage of this legislation, the laws have served a useful purpose in punishing those few corporations and investment bankers who have acted to defraud investors; and in this way, they have helped to preserve the high standards which have prevailed recently in the conduct of investment banking business.

6. Investment companies are sometimes called open-end and closed-end investment trusts. They gather the savings of a large number of persons through the sale of their own securities. The funds received from this sale of their securities are invested in a diversified group of stocks or bonds for the benefit of all the purchasers.

In an open-end investment company, additional securities are issued as additional sales are made; therefore, the amount of funds available for investment rises and falls depending on the success of the selling effort. In a closed-end investment company, there is a relatively fixed amount of capital available for investment; once the shares are distributed, they are sold and purchased on the secondary market only.

Investment companies have been successful because (1) they have been investing most of their funds in common stocks, the earnings of which have been considerably higher (up to 1957) than the interest offered by savings institutions or on federal government securities; (2) they have been able to show large capital gains to their investors because the value of common stocks has been increasing; and (3) they perform a useful service to investors whose savings are not large enough to permit diversification or the employment of an investment counselor.

7. (1) The board of directors must establish a trust committee to manage a separate trust department, completely free of and separate from all other bank departments. However, honesty and integrity in the management of the trust department continues to rest with the bank's board of directors.

(2) The trust department should not accept business unless the department has assured itself that the trust service is needed and that the type of service needed can be properly carried out.

(3) In the case of a corporate trust, the bank should not accept trust responsibilities until it has assured itself that the activities of the corporation are being properly conducted and that the corporation's financial position is sound.

(4) In the case of a personal trust, the bank must administer the trust solely in the interest of the beneficiary.

(5) The investment goal is the care and management of property left in trust rather than safekeeping or speculation.

(6) The fees charged must always be reasonable and in accordance with state laws.

8. Eighty-five per cent of their total resources may be loaned only on first mortgages on new homes or combination home-and-business properties within 50 miles of the association's home office. If the loan is not insured by the FHA or guaranteed by the Veterans Administration, it must not exceed $20,000 for terms up to 20 years, and it must be made on the basis of monthly payments which will retire the loan by its due date. The loan may cover as much as 80 per cent of the appraised value of the property, and loan contracts not providing for amortization may be extended for five years on the basis of a smaller percentage of appraised value. FHA and GI loans are always acceptable.

The remaining 15 per cent of their resources may be loaned on multi-family apartments and business property without regard to the 50-mile limit or the $20,000 maximum. These loans generally range between one half and two thirds of the appraised value of the property depending upon the type of payments contract and the general character of the property.

In addition, of course, the association may invest in federal government securities, and in three fourths of the states, in municipals (state and local governments securities).

# Chapter 9

# FEDERAL GOVERNMENT LOAN and CREDIT AGENCIES

One of the truly significant financial developments of the past century is the expansion of the activities of the federal government in the extension of credit and the insurance and guarantee of lending by private institutions. From a very small start in the area of long-term agricultural credit in 1916, federal government credit activities and federal government department balances have grown to include over twenty specialized government agencies with assets of over $69 billion (1957); a little more than one-third the total of all commercial banks. In addition, FHA insurance and VA guarantees have underwritten another $40 billion of residential loans (1956).

TYPES OF LENDING. In nearly all cases federal government loan and credit agencies have not entered into direct competition with private lenders. Basically the federal government has commenced lending activities in the absence or inability of private sources to provide needed funds and in order to bolster private enterprise. The federal government does not engage in lending as a straight business transaction. Nearly without exception it has lent money only to further the accomplishment of a public purpose—social or economic. This general purpose has been reached by the following broad categories of objectives.

1. Government financial assistance has been used to build up mutual credit institutions for the purpose of broadening the availability of credit and increasing the stability of credit systems. These activities include the Federal Reserve banks, the Federal Home Loan banks, the Federal National Mortgage Association, and the Federal Intermediate Credit banks of the Farm Credit Administration.

2. Government financing has been used to build up mutual credit insurance institutions as experiments in the underwriting of institutional stability. As a result we have the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance

Corporation, the Federal Housing Administration, and the Veterans Administration; the latter two are underwriters of home-mortgage insurance.

3. Government financing has been used to build up the nation's industrial potential in response to the requirements of war and national security. The Reconstruction Finance Corporation, the facilities of the Federal Reserve System, the Export-Import Bank, the Foreign Operations Administration, and other agencies were employed in these activities.

4. Government funds have been loaned directly to private individuals and business concerns in financial distress, for purposes not associated with war or national security. The Export-Import Bank and the Reconstruction Finance Corporation are active in this field at the present time, and the Farm Credit Administration conducts a curtailed program, having been engaged more extensively in emergency programs in previous years.

5. Government lending has been employed in programs undertaken primarily to subsidize the activities of individuals or business enterprises. The programs of the Farmers' Home Administration, the Public Housing Administration, the Rural Electrification Administration, the Commodity Credit Corporation, and Banks for Cooperatives are examples.

**Agricultural Lending.** Agricultural lending by the federal government is conducted through eight different agencies. Some of these agencies are largely privately owned and managed whereas others are nearly entirely government owned. They are engaged in a great variety of agricultural related lending activities.

SHORT-TERM CREDIT. Short-term credit is extended by the Federal Intermediate Credit Banks (FICB), the Banks for Cooperatives, the Production Credit Corporations (PCC), and the Production Credit Associations (PCA). These comprise a total of 37 federal government corporations and about 500 associations. The FICB's and PCC's are entirely owned by the federal government. This is also largely true of the Banks for Cooperatives but it is no longer true of PCA's. At present about 86 per cent of the stock of PCA's is owned by farmer members.

LONG-TERM LENDING. Long-term loans have been made by the Federal Land Banks (FLB) and the Federal Farm Mortgage Corporation. These two agencies hold about one third of all farm mortgages. The Federal Land Banks were established in 1916 to extend loans on farm mortgages which had been previously accepted by the cooperative mortgage-credit associations provided for under the original Federal Farm

Loan Act. These loans have been extended only if the value of the security was considerably (usually 50 per cent) greater than the amount of the loan.

DEPRESSION LENDING. The sharp drop of agricultural prices in the 1930's necessitated financing upon a more liberal basis. The Federal Farm Mortgage Corporation established in 1934 was designed to meet this need. It obtained its funds for lending from the federal government and from the sale to the public of bonds guaranteed by the federal government. The lending authority of the corporation expired in 1947; since that time it has been engaged in collecting loans. The World War II prosperity made most of the corporation's loans sound, while many of them had appeared very doubtful when originally extended.

**House Lending.** Much of the federal government housing activity consists of extending and guaranteeing loans. The program was initiated in 1932 and resulted in the establishment of a number of agencies. The Home Owners Loan Corporation (HOLC), now inactive, was formed to refinance home mortgages. The development of low-rent housing and slum clearance is still active and is organized within the Public Housing Administration (PHA). The aid is extended as loans and also as annual subsidies. The Federal Housing Administration (FHA) was established to increase housing loans through guarantee of payment, and lower interest rate and collateral requirements. It is very active, and has guaranteed a large number of home mortgages. The unpaid balances of these FHA loans in 1956 were estimated to total $15 billion. The Public Housing Administration (PHA) was also established during the 1930's. Legislation of 1949 restored this program to major significance.

WORLD WAR II PROGRAM. During World War II, programs to provide emergency housing needs were established. These activities were provided under the Lanham Act, and have been liquidated. These programs did not make extensive use of loans to achieve their aims, but rather entered directly into construction activity.

POSTWAR DEVELOPMENT. During the postwar period, federal government guarantee of loans to provide housing expanded greatly. The "G. I. Bill of Rights" provides for the guarantee of home loans by the Veterans' Administration. VA-guaranteed loans are obtainable with a minimum of red tape, with extremely low down payments, small monthly payments, and low rates of interest. They have been very popular and total about $25 billion (1956).

FEDERAL HOUSING ADMINISTRATION. The loan guarantee program of the Federal Housing Administration is worthy of additional consideration. Existing legislation provides for eight different insurance programs. The former FHA insurance program and the added insurance provisions are as follows:

1. Title I. Insurance of loans to alter, repair, improve, and, within certain limitations, construct both residential and nonresidential properties. (Each month loans totaling over $50 million are extended under this title.)

2. Section 203. Insurance of mortgages up to 80, 90, or 95 per cent of appraised value on new and existing one-to-four-family homes. (Monthly lending under this title has recently averaged about $300 million.)

3. Section 207. Insurance of mortgages up to 80, 90, or 95 per cent of value on multifamily residential rental projects.

4. Section 608. Insurance of mortgages on multifamily residential rental projects on special terms designed to stimulate production of rental housing under present economic conditions.

5. Section 609. Insurance of loans for the manufacture of housing by industrial processes, and short-term notes incident to the sale of prefabricated homes.

6. Section 610. Insurance of mortgages executed in connection with the sale by the federal government of certain federally owned housing.

7. Section 611. Insurance of construction loans on groups of 25 or more single-family dwellings constructed by modernized large-scale site-construction methods.

8. Title VII. Yield insurance for investors in large-scale rental housing projects.

The Federal National Mortgage Association (Fannie Mae) is a federal agency that buys and sells government-backed home mortgages in the secondary market (it does not make direct mortgage loans). In 1954 it was rechartered to eventually transfer it to private hands. This transfer was to take place through a requirement that sellers of mortgages to Fannie Mae purchase stock equal to 3 per cent of the mortgages sold.

**Business Lending.** Business lending of the federal government is as old as the government, but it experienced a great expansion during the period of large-scale railroad construction of the 1870's and 1880's. The next period of rapid growth was during the depression of the 1930's. In 1932 the Reconstruction Finance Corporation was established by the federal government through the purchase of $500 million of stock. The corporation was to assist financial institutions, railroads, farm-

ers, business firms, and governmental units who found the deflation of the depression too difficult to bear. Despite the distressed conditions existing when extended, these loans have been largely repaid.

The RFC loans extended at this time to the railroads and financial institutions were particularly important. This lending activity reduced the harm arising from the depression and in nearly all instances developed into good financial investments.

The activities of the RFC expanded greatly during the World War II period. It was utilized by the federal government as a convenient institution available when policy dictated stimulation of economic activity in a particular area. The RFC went out of existence on June 30, 1954, and its assets and activities were transferred to the National Mortgage Association, the Small Business Administration and the Export-Import Bank.

WARTIME ACTIVITY. During World War I the loans to businessmen increased to meet the needs of war production; these were largely private loans. Again during World War II loans provided an important share of the capital required for enlarged and reconverted production capacity. This time, however, the loans were largely provided by the federal government, directly or indirectly; this in turn necessitated a huge expansion of lending activities.

Business firms engaged in producing goods or services vital to the war effort were provided the following credit sources through federal government action:

1. A loan from a bank, secured by an assignment of claims under a government contract, or otherwise.
2. A Regulation V loan from a bank or other financing institution guaranteed pursuant to the provisions of the Executive Order and the Regulation issued thereunder.
3. A loan from the RFC.
4. A loan from a Federal Reserve bank under the provisions of Section 13 (b) of the Federal Reserve Act.
5. A loan from the Smaller War Plants Corporation.
6. A direct loan from the War Department, Navy Department, or Maritime Commission.
7. A combination of two or more of the foregoing.
8. Advances from the War Department, Navy Department, or Maritime Commission if the business enterprise held a prime contract.

V LOANS. The most important device developed by the federal government during World War II to extend credit to business was the V loans. These were loans for less than five

years to businesses producing goods for the army, navy, or maritime commission, and they were guaranteed by one of these three agencies. The loans were extended by the Federal Reserve System or a commercial bank; most were extended by commercial banks. A V loan to a producer of goods helpful to the War Department was often obtained in the following manner:

The contractor applied for the loan at his local bank. The local bank presented the application to the district Federal Reserve bank who drew up the terms with the local loaning bank. The army liaison officer stationed at the Federal Reserve bank then checked with the prime contractor (in the case of a subcontractor's application) or the technical branches of the army to determine that the production was necessary, and that the contractor had the ability to produce the product at the price stated. If the results were satisfactory, a loan was granted.

A complete case report on all loans was sent to the Financial Contracting Officer in Washington through the Federal Reserve System. The army liaison officer also sent a report. The producers paid a maximum rate of interest of 5 per cent on the loan, plus the fees charged by the three services (army, navy, and maritime commission) for their guarantees. These guarantee fees varied from 10 per cent to 50 per cent of the loan rate. The guarantee fee expanded with the rise of the percentage of the total loan guaranteed. V loans extended totaled $10.3 billion at the end of World War II.

The Defense Production Act of 1950 has continued this procedure, and in 1956, about $500 million of these insured loans were outstanding. The Federal Reserve banks also have continued to extend loans directly, and in 1956, these loans totaled about $1 billion. Under both types of activity the amounts involved are small.

**Small Business Administration**

The federal government agency most active in extending credit to business has been the Reconstruction Finance Corporation (RFC) which became inactive in 1953 and went out of existence in 1954. While functioning the RFC was frequently attacked for being too liberal and for not being liberal enough, for taking too great risks and for not taking enough risks, for lending to those who were able to obtain credits from private institutions and for lending to those who did not have a credit standing, for lending to too many Republicans and for lending to too many Democrats. Despite these constant complaints the

RFC's record, considered now, after the heat of the conflicts, seems to have been good.

The RFC was replaced in 1953 by the Small Business Administration (SBA). The SBA has been in operation for over four years, but its loans still total less than $100 million. This lack of activity is more than likely partly due to the bad taste left behind by the RFC, but in addition, it seems that government credit to small business has not yet developed the correct approach.

One promising method of making loans to small businesses being explored by the SBA is the encouragement of private regional lending organizations like the Development Credit Corporation of Maine. These regional organizations furnish long-term risk capital to new business ventures; the funds advanced come from private financial sources, from the sale of securities issued by the development corporation, and from funds received from the federal government.

**International Lending.** The United States did not engage in important international lending activities until after World War I. At that time the federal government extended large loans to aid in reconstructing Europe. These loans became the World War I debts which were a source of considerable international financial difficulty. Repayment of the loans became tied to the payment of reparations by Germany. The Dawes Commission in 1924 and the Young Commission in 1929 attempted to provide workable plans for the payment of German reparations and indirectly for the repayment of the United States war loans to European nations. The plan established by the Young Commission failed to solve permanently the German reparation problem, but did establish the Bank for International Settlements which continued to function as an international institution throughout World War II. The Bank still exists in Switzerland.

The depression of the 1930's caused the suspension of German reparation payments and a moratorium on war debt payments. Both the reparations and the war debts are now almost forgotten, and the expectation of payment is gone.

Shortage of Private Lending. Private American international lending activity was substantial in the period of the 1920's. These loans enabled foreign nations to purchase a greater quantity of goods and services from the United States than would have been otherwise possible. The decline of the post-World War I boom caused difficulties in the repayment of the interest and principal of these loans. The losses of American

investors were so substantial (although they were perhaps less extensive than the losses in the domestic stock market) that it has been very difficult since the 1920's to interest Americans in foreign investment. A basic purpose of the Point-Four program (federal government provision of technical information and insurance of the capital value of foreign loans) is to provide government financial guarantees adequate to bring forth large private international investments.

In 1934 the Export-Import Bank was established as a federal government corporation to expand international lending. During this period private lenders were unwilling to extend foreign credits, but American funds were needed by backward and depressed nations. The bank's establishment was also favored by United States domestic interests experiencing surpluses that could be reduced through the expansion of exports financed with American credit.

LEND-LEASE. During World War II the federal government directly extended even larger credits than during World War I. This time the credits were extended as lend-lease rather than as loans to be repaid. Lend-lease was treated as a device of mutual aid.

BRITISH LOAN. At the conclusion of World War II (1946) the federal government extended to Great Britain a line of credit totaling $3.75 billion, at an effective interest rate of approximately 1.65 per cent. The agreement provides that interest payments be waived if the British possess an inadequate quantity of dollar exchange, but it does not provide for cancellation of principal payments. The loan must be repaid within fifty years. In addition, the United States through the federal treasury provided large quantities of dollar exchange as gifts to be used by Western European nations in their reconstruction activities. The manner of the use of these funds has been partially controlled by the United States. Additional dollar credits were made available in this manner through UNRRA, ECA, and the individual grants to Greece, Turkey, and China.

MARSHALL PLAN. These extensions of credit and gifts by the United States government have been very helpful in modernizing and reorganizing the war-torn economies of Europe, but they are not expected to replace the financing of real investment by private groups, but rather to serve as a stopgap. The ECA (Marshall Plan) includes provision for private investment in foreign nations, with the federal government guaranteeing the convertibility of earnings into dollars. This is an attempt to overcome the retarding effect on foreign investment caused by

previous difficulties in transferring foreign earnings into dollars. The underlying cause of this problem can be alleviated if current trade restrictions are reduced and if Americans become willing to reinvest a large portion of their earnings in the country in which they are earned.

EXPORT-IMPORT BANK. It was previously indicated that the Export-Import Bank was established in 1934 to stimulate the foreign-trade of the United States. The size of the activities of the bank has gradually expanded since 1934, but it is still rather modest. The total loans and guarantees of the bank may not exceed $4.5 billion. Usually the bank's credit has been extended only when there is a reasonable assurance of repayment and generally only if the credits granted are to be used to purchase American goods and services. Finally, the bank does not compete with private capital seeking foreign use, but supplements and encourages it. On June 30, 1955, the total credit extended and authorized by the bank was $2.8 billion.

The funds of the Export-Import Bank are provided entirely by federal government sources. The capital stock of $1 billion is owned entirely by the federal government, and the bank is authorized to borrow only from the Secretary of the Treasury.

The Export-Import Bank was originally established as an arm of United States foreign policy. It is of interest that its first efforts were aimed toward developing trade with Russia. Also, originally, its lending was limited to the facilitation of trade, but its powers have since been broadened to include development and reconstruction loans. Its activities somewhat duplicate those of the International Bank for Reconstruction and Development (the World Bank). Its unique usefulness lies in the fact that it can operate directly as an agent of the United States, which, of course, the World Bank does not. A further development along this line took place in 1957 when Congress granted funds for a Development Loan Fund to be administered by the International Cooperation Administration (ICA) and used to finance economic development investment projects in underdeveloped areas of the world.

United States policy as developed in the World Bank and in the Export-Import Bank, as well as other international financial activities, are coordinated through the National Advisory Council on International Monetary and Financial Problems. (See p. 191.) Members of this council represent all federal government agencies interested in international financial operations.

# QUESTIONS and ANSWERS

**Questions:**

1. What do the Federal Land Banks do, and how do they do it?
2. What are the sources of funds of federal lending and credit institutions?
3. What are the requirements to be eligible to borrow from a Bank for Cooperatives?
4. Explain the operations of the Commodity Credit Corporation. (CCC)
5. Explain the functions and the organization of the Federal Home Loan Bank (FHLB) System.
6. Explain the operations of the Federal Savings & Loan Insurance (FSLI) Corporation functions.
7. What financial service have the Production Credit Associations (PCA) provided?
8. What are the distinct features of the Farmers' Home Administration?

**Answers:**

1. The Federal Land Banks provide funds for lending purposes, and they supervise the operations of the national farm loan associations that do the actual lending. These associations are cooperative organizations formed by ten or more borrowers and chartered by the Farm Credit Administration. Each member must buy stock equal to 5 per cent of its respective loans, and the association in turn buys an equal amount of stock in the Federal Land Bank of the district in which it is located. Loans with Federal Land Bank funds may only be made to farmers or persons who soon will be farmers. The major purposes for which loans are granted is (1) to purchase land for agricultural uses. In addition, loans are granted (2) to refund farm mortgages and (3) to finance long-term improvements. Loans may be as high as 65 per cent of the normal agricultural value of

a farm. The appraisals are made by public officials not under the jurisdiction of the Federal Land Banks.

The funds loaned are received from the sale of Federal Land Bank consolidated bonds. Most of these bonds are held by commercial banks. The federal government does not guarantee these bonds either as to interest or to principal.

2. The only federal lending agencies having the power of creating funds are the Federal Reserve Banks, and their activity as direct lenders has been small. (See p. 168.) All other federal lending agencies must rely on funds provided by (1) the Treasury (borrowed funds or tax revenues) as capital or as a drawing account (2) profits and investment by borrowers or others (3) borrowings through the sale of agency securities of one type or another to financial institutions or individuals.

Because the Treasury's borrowing needs must be met by the Federal Reserve System as the fiscal agent of the federal government, the right of a federal lending or credit agency to demand funds from the Treasury is very nearly the same as having the power to create funds.

3. To be eligible for a loan from a Bank for Cooperatives a cooperative (1) must be operated for the mutual benefit of its members; (2) must do more business with members than with non-members; (3) must not permit any member to have more than one vote in setting policy; (4) may not pay dividends in excess of 8 per cent per annum; (5) if granted a loan, borrower must buy stock of the Bank of Cooperatives equal to 1 per cent of commodity loans and 5 per cent of operating or facility loans.

4. The Commodity Credit Corporation is the agency through which the federal government finances its purchases of, and loans on, farm commodities in order to hold prices at a percentage of "parity", frequently it is 90 per cent of parity.

The CCC ultimately obtains its funds through grants from the U.S. Treasury in amounts authorized by Congress, but in its day-to-day operations it may borrow from either the treasury or private financial institutions. The credit granting of the CCC is an action that has meaning only as a method of carrying out the will of Congress to support the price of agricultural commodities.

In carrying out the program, loans are actually granted to eligible farmers by private lending institutions under an agreement that if the 3 per cent non-recourse loans are not paid the

note will be purchased by the CCC, and the CCC will acquire the commodity placed under the chattel mortgage granted as security for the loan.

5. The FHL system is on a regional basis and consists of 11 banks established in 1932 to assist home financing associations. All Federal Savings and Loan Associations must become member institutions and nearly all other home lending agencies may become members upon meeting certain qualifications. The FHL banks are a part of the Home Loan Bank Board which also includes the Federal Savings and Loan Insurance Corporation and is a part of the Housing and Home Finance Agency.

The stock of the banks was originally owned by the federal government but it is now entirely owned by FHL members. The FHL banks do not have the power of creating funds and rely largely on the sale of consolidated Federal Home Loan Bank obligations to the public. In addition, the FHL banks receive deposits from member institutions and, of course, they have available the funds arising from the purchase of their stock by member institutions, which is equal to 2 per cent of the aggregate unpaid balances of the member's home mortgage loans.

The FHL banks use their funds to lend to members on a secured or unsecured basis. The availability, of this drawing account, as it were, greatly increases the liquidity of member institutions. The discounting facility made available to members is very similar to that provided by the Federal Reserve banks to their members, however, members of the FHL banks are not required to keep a minimum deposit as reserves as are Federal Reserve member banks.

6. The FSLI Corporation was established in 1934 under Title IV of the National Housing Act. It is supervised by the Home Loan Bank Board. The original capital of $100,000,000 was provided by the HOLC now liquidated. The ownership is now held by the Treasury. A procedure (50 per cent of annual income is to be applied to the redemption of stock) to pay off the capital provided by the federal government was established in 1950 and it is expected that by 1960 the FSLI will be wholly owned by its members, but federal government supervision will be continued.

The FSLI will return up to $10,000 per insured account in case an insured institution defaults on its obligations. All Federal Savings and Loan Associations must have their accounts

insured and state chartered associations may have their accounts insured upon applying and qualifying. About 82 per cent of total savings and loan resources are included under the program.

Insured associations are periodically examined and each member must contribute to a special reserve fund for losses until such reserve is 5 per cent of total savings accounts. In addition, each member must pay an annual premium rate that corresponds roughly with that required by the FDIC. The $100,000,000 of capital stock plus the accumulations from premium payments and reserves provide the funds available to meet losses. In addition, if necessary, an additional assessment may be made up to the amount of the annual assessment.

7. The PCA's are related to the Production Credit Corporations and the Federal Intermediate Credit Bank in a way that is very similar to the relationship of National Farm Loan Associations to the Federal Land Banks.

In western United States loans required for agricultural production were too large for local commercial banks to carry but the PCA's were able to do so. In the South many of the loans were too small for local banks to administer but the PCA found it profitable to carry these loans. Also, PCA's have been leaders in developing farm loan management procedures, e.g., their stress on ability to pay in extending credit rather than on mere availability of security. Also PCA's have provided lending competition in many areas which has resulted in lower interest rates and generally improved borrowing conditions.

8. The Farmers' Home Administration extends both short- and long-term credit. Rather than ability to repay, the basis of the credit grant is: Will it be beneficial to the general welfare of the borrower and the community?

Most loans are made to persons attempting to establish a farm in a new area or to make their present unproductive farm productive. Loans are made from funds appropriated by Congress. Liens are placed on property when the loan is granted but the main security is the borrower's honesty, his luck, and his ability.

# Chapter 10

# INTERNATIONAL MONETARY INSTITUTIONS and PRACTICES

**Definition of International Finance Terms.** The discussion of international economic activity involves use of terms which are largely new or whose exact meaning is vague to the non-specialist.

*International finance* is concerned with means of payment and transfer of capital assets between countries. The term *foreign exchange* is used to refer to the money of foreign countries. A dealer in foreign exchange purchases money of foreign countries and has it available to sell to any person desiring foreign money to purchase a good or service, to repay a debt, or to finance a trip. Foreign exchange is usually not in the form of currency and is not desired in that form. It is wanted and used in the form of drafts, checks, letters of credit, acceptances, and similar credit instruments. Foreign exchange is frequently referred to as a *bill of exchange*. Either term can be used to indicate the supply of foreign money.

BALANCE OF PAYMENTS. The balance of international payments is considered unfavorable when the demand for foreign exchange is greater than the total demand for the national currency by foreign nations. This is frequently largely determined by the *international balance of trade*. The international balance of trade is unfavorable when the value of goods purchased by a country from all foreign nations is greater than the value of goods which foreign nations purchase from it. The international balance of payments is, in addition, affected by (1) service items and (2) short- and long-term international capital movements, that is, changes in the type and quantity of investments held by the nationals of different nations.

DEVALUATION. The term *devaluation* is used to refer to a national monetary policy aimed at reducing the currency's value in terms of foreign currencies. This policy tends to increase the nation's exports by causing a relative decrease in

the price of goods and services exported. It was a very popular type of monetary policy during the depressed period of the 1930's; and was successful in expanding exports, raising prices, and reducing imports when initiated by economically-unimportant nations that exported a large portion of their total product. When later in the 1930's the policy was initiated by the great commercial nations, it quickly degraded into competitive devaluation which was, and still is, considered to be economically harmful to all nations.

Devaluation has been utilized again in the post-World War II period to increase exports. This time rising domestic prices are not wanted, but decreased imports, especially from the United States, is a very important goal of the program. In the postwar period devaluation of over 10 per cent is possible by members of the International Monetary Fund only with the Fund's approval. This control by international agreement is expected to reduce and finally eliminate competitive devaluation (see the discussions on pages 182–184).

PURCHASING POWER PARITY. This term is used when equilibrium in the exchange rates of different national currencies is discussed and analyzed on the basis of the domestic price levels. Equilibrium exists if the exchange rate is such that approximately the same quantity of goods can be obtained if the currency is spent within the country of issue or if it is used to purchase the currency of some other country, and that currency is spent within the country of its issue for goods and services.

Purchasing power parity and the balance of payments are the most important considerations utilized by the International Monetary Fund when deciding upon changes in the relative value of national monetary units.

EXCHANGE CONTROLS. The purpose of direct *exchange controls* is to hold the price of foreign currencies in the domestic market at lower levels than would have been possible in a free market. This increases the demand for foreign money because foreign-made goods become relatively inexpensive. This in turn causes a shortage of foreign currencies, and a system for rationing foreign currencies (foreign exchange) must be introduced. It is this rationing that constitutes the direct control of foreign exchange. This procedure will achieve a balance of a nation's foreign transactions and reduce the cost of imports, but it will also decrease the total quantity of foreign trade.

**Foreign Exchange Operations.** The use of many foreign exchange rates has arisen from the variety of problems en-

countered in making payments in foreign countries. Payments of this type must be settled by use of claims on foreign currencies. These claims are purchased through banks, for they are the institutions possessing claims on foreign (currency) exchange. Banks have claims on foreign exchange in the form of deposits in foreign banks against which bankers' bills may be drawn. Banks acquire their deposits because exporters and others sell their claims to foreign funds to banks in the form of commercial bills.

EXCHANGE RATES. The price paid for foreign exchange is called the *exchange rate*. There are many types of rates. A few of them are listed and briefly described below:

*Spot Rate.* The price at which claims to foreign exchange can be immediately obtained.

*Forward Rate.* The price of foreign exchange for future delivery. It follows the spot rate very closely. It is used to eliminate speculation in exchange rate changes. At the same time that foreign exchange is sold for future delivery, similar exchange is purchased for delivery when the exchange sold must be delivered.

*Cable Rate.* The rate used by bankers in selling their claims to foreign exchange. The funds are made available immediately.

*Sight Rate.* This rate is slightly lower than the cable rate because funds are not available until the paper is presented.

*Official Rate.* The rate established by a government for the sale of its currency.

ARBITRAGE. Dealers in foreign exchange may sometimes make profits from discrepancies in the exchange rates. It is a sure-thing speculation. They make large commitments for a few minutes in the currencies of different countries or in the prices of securities and commodities. They buy where the quotation is low and sell where it is high. This, of course, decreases the supply of exchange, securities, or commodities where the price is low and increases the supply where the price is high. The effect is to equalize the prices of the two areas.

**The Problem of International Exchange.** An individual nation through the use of its police power can declare its money legal tender, ration goods and services, and establish price controls. These powers are quite effective in maintaining the value of a monetary unit and guaranteeing (unless the state's police powers are very inadequate) that the money will be utilized in exchange activity; that is, the money will be accepted by a domestic seller in exchange for goods or services.

CONTROL OVER INTERNATIONAL VALUE. A particular na-

tion cannot extend to its monetary units the power of legal tender in foreign countries. The value of a nation's money in terms of goods and services of foreign nations is largely determined by the quantity of its own goods and services desired or purchased by nationals or governments of foreign nations. And this in turn is determined by the types of goods and services produced within the nation and the relative prices of these goods and services to the foreign government or foreign nationals requiring them.

If a nation has relatively large exports and small imports, the value of its monetary unit tends to increase; if international trade balances are in the opposite direction, the value tends to decrease. This relationship sets in motion forces tending toward stability in the value of the monetary unit of any particular country. If a government is going to try to prevent the relative change in the value of its monetary unit caused by the movement of goods, services, and investment, it must restrict the free exchange of goods and services by its nationals. The devices to achieve the needed restriction are numerous, but none are completely effective in preventing a decrease or an increase in the value of a nation's monetary unit if the *balance of payments* continually tends in one direction.

Relation to Domestic Economic Conditions. Modern nations are very much interested in preventing unemployment and a reduction in the scale of living of their laboring population. If these policies cause the imports of the nation to increase more rapidly than its exports, the government and its nationals will experience a shortage of money from foreign nations (foreign exchange) to be used to purchase the goods they wish to buy from foreign areas. At the same time foreigners will find that their supply of the currency of the country in question is greater than needed to pay for the purchases they desire to make.

The result is that if the scale of living of the country in question is dependent upon the purchases of goods and services from foreign countries and the sale of goods and services in foreign areas, the scale of living will decrease. This decrease arises both from the higher price that must be paid for foreign goods and from the unemployment that will develop if the prices of goods exported are not permitted to decrease. This has actually been the situation in many countries of Western Europe duirng the postwar period. A drastic reduction in wages and the scale of living in these areas has been largely prevented by extension of loans by the United States. These

aid programs have had the same effect as if those countries had sold large quantities of goods and services to residents of the United States.

AUTOMATIC GOLD STANDARD. Prior to the great depression of the 1930's (the automatic gold standard was actually destroyed by central-bank policies of the 1920's), the nations of the world operated, to a greater or less degree, on what is called the *automatic gold standard.* (See pp. 7–9.) This standard was to provide the adjustments required for a free, and assumed desirable, flow of trade among the nations of the world. Briefly the scheme operated in this fashion. Each country set its monetary unit as equal to a certain weight of gold. Anybody could exchange a monetary unit for this amount of gold. The relative weights of gold into which monetary units could be transferred determined their relative values. Prices in the different nations were to be adjusted by the flow of gold from nation to nation.

If prices in country *A* were relatively high, its international purchases would increase and its international sales decrease. This would cause the money of *A* to accumulate in the hands of foreigners in quantities in excess of needs. They would demand gold for this money, and gold would flow from country *A* into country *B*. The flow of gold through its effect on the size of the base upon which credit could be issued would decrease prices in country *A* and increase prices in country *B*. The effect was that domestic price levels were at the mercy of changes in the international flow of gold. This was partly justified if gold flowed as the result of price differentials of the type indicated. However, gold also flowed as the result of investors' switching their security holdings, and mere speculation in the currencies of different countries.

In addition, the political leaders of many nations became unwilling to permit domestic prices to fluctuate to meet the requirements of an automatic gold standard. The result was the establishment of central-bank policies to prevent gold movements from affecting the general price level and the establishment of different weights of gold for the standard unit. Both practices destroyed the basis for an automatic gold standard and both arise from a political unwillingness or inability to permit the fluctuations in the domestic level of prices which the automatic gold standard required.

THE INTERNATIONAL MONETARY FUND'S USE OF GOLD. In 1944 the nations of the world provided for the establishment of the International Monetary Fund (see the discussion on

pages 181–184). The Fund agreement establishes means for the orderly change of the gold content of a nation's standard monetary unit, which means a procedure for the change of the relative value of the currencies of the different nations. Although the different standard monetary units are stated in relation to gold, the actual meaningful relationships are those stated in terms of dollars. In the postwar world it is not the dollar that is on the gold standard but gold that is on the dollar standard. The Fund arrangement assumes that exchange rates will fluctuate and domestic price levels will remain rather constant or at the level considered desirable by domestic and impartial monetary authorities. The automatic gold standard concept assumed that exchange rates would remain relatively constant and that domestic price levels would be left to fluctuate.

## INTERNATIONAL LENDING AND MONETARY STABILIZING

**The International Monetary Fund.** The articles of agreement of the International Monetary Fund were formally agreed upon at the United Nations Monetary and Financial Conference held in Bretton Woods, New Hampshire, July 1-22, 1944. The Fund came into existence on December 27, 1945, when 29 governments, representing 80 per cent of the quota, signed the articles of agreement in Washington. An inaugural organizational meeting of the Board of Governors (one appointed by each member nation) of the Fund was convened at Savannah, Georgia, on March 8, 1946, at which time the by-laws were approved, the site of the headquarters of the organization agreed upon, and the Board of Executive Directors chosen. The Board of Executive Directors (see page 183 for composition) met for the first time on May 6, 1946.

On December 18, 1946, the Fund announced its agreement to the official par value of the currency of 32 of its members, and on March 1, 1947, it was open for business "in the form of exchange transaction." In the fall of 1949, the values of nearly all currencies were reduced, with the United States dollar the outstanding exception. This general devaluation was expected to alleviate the chronic dollar shortage.

PURPOSE. The International Monetary Fund is an association of nations that have bound themselves together by accepting the fund's articles of agreement, to further the purposes of stability in international currency values and of an expan-

sion of world trade. These nations agree, in effect, to outlaw the competitive exchange practices which characterized the international economic disorder of the 1930's and also to stimulate international trade. They hope to accomplish this goal by:

1. Working toward the eventual removal of restrictions on foreign exchange transactions.

2. Setting up a schedule of exchange rates, that is, currency prices in terms of gold and U. S. dollars, so that traders who wish to buy in foreign countries can obtain the currency they require at known and stable rates.

3. Insuring that any major changes in foreign exchange practices will be submitted to international consultation before being put into effect.

To help achieve this objective, the Fund's articles of agreement also authorize it to engage in foreign exchange and gold transaction with members; thus the fund provides a secondary line of monetary reserve.

MEMBERSHIP. At the beginning of 1956, 56 nations were members of the Fund. This is an increase from the 44 nations represented at Bretton Woods, and 22 more than were convened for the inaugural meeting in March, 1946.

New members may be admitted by the Board of Governors on the terms and conditions set by the Fund. It should be noted that Fund membership is a prerequisite to membership in the International Bank for Reconstruction and Development.

FINANCES. A subscription quota has been set for each member, payable partly in gold and partly in the members' own currency. These quotas vary from $500,000 for Honduras and Panama to $1,300 million for the United Kingdom and $2,750 million for the United States. Voting power and the amount which members, otherwise eligible, may draw from the Fund are both related to the size of these quotas.

The total quotas of the 60 members of the Fund is $8.9 billion. Of this total $2.0 billion is in U. S. dollars, $1.6 billion in gold, $4.3 billion in local currencies other than U. S. dollars and $1.0 billion is still receivable, partly because par values of some currencies have not been established (1957).

ADMINISTRATION. The top authority of the Fund is exercised by the Board of Governors, one governor representing each member country. Normally the Board meets once a year, but it may, on occasion, take votes on certain matters by mail or other means between annual meetings. The Board of Governors has delegated many of its powers to the Board of Executive Directors. However the conditions governing the ad-

mission of new members, any revision of quotas, the election of the executive directors, changes in by-laws, and certain other important decisions remain the sole responsibility of the Board of Governors.

The Board of Executive Directors is made up of five directors appointed by the countries having the five largest quotas. Currently these countries are China, France, India, the United Kingdom, and the United States, and nine others, these being elected by all the other members. The Latin American members are, by the articles of agreement, entitled to two places on the Executive Board.

OPERATION PROCEDURES. The Fund works very closely with the International Bank for Reconstruction and Development. The information available through the International Bank is utilized by the Fund in making its decisions. The executive directors of the Fund are in some cases executive directors of the bank, and the same is true of several governors.

The three principal methods by which the Fund works to achieve its objectives are:

1. By affording to its Board of Directors a sort of continuous monetary conference, for full consultation when certain financial matters are conducted.

2. By furnishing, upon request, expert technicians to advise and assist members in the working out of their financial and monetary problems.

3. By making its foreign exchange resources available under proper safeguards to its members to meet short-term, current-payment difficulties (see the discussion on page 164).

With all these activities, the Fund approaches the problems of its members from a realistic international point of view, applying the principles of the Fund agreement to meet the changing circumstances of the world today.

1949 DEVALUATIONS. The greatest problem faced by the Fund up to 1950, was the general devaluation of the currencies of many countries in 1949. This general devaluation was spearheaded by the deteriorating position of the British pound. The factors considered by the Fund in granting devaluation permissions are best understood by examination of the British crisis.

The immediate cause of the British crisis was heavy losses of British monetary reserve (gold and dollar exchange balances). These heavy losses arose from reduced British sales in the American market that were related to price declines in the United States and the slight recession of the summer of 1949.

These reduced British sales had forced introduction of rigid restrictions on British foreign spending. These restrictions in turn further reduced confidence in the British pound, which caused buyers to delay purchase of British goods and avoid converting balances into pounds. The impact of the crisis was the unsettlement of world financial markets which adversely affected postwar reconstruction. The solution adopted was reduction of the par value of the British pound from 3.58134 to 2.48828 grams of fine gold, or from $4.03 to $2.80 in terms of the dollar. Although the British pound has frequently been under heavy pressure the new rate established in 1949 has been maintained (1958).

Background reasons are related to the apparent impossibility of reducing production costs of British and other Western European manufactured articles. The costs at the rates of exchange existing prior to devaluation made the price of goods produced in Western European nations too high to compete with goods produced in the United States. The devaluation had the short-run effect of drastically reducing the prices of goods produced in Western Europe in the markets of the United States and other "hard currency" areas. The longer-run effect is that it will again provide an area for price flexibility which will make possible new price relationships and the elimination of the undersirable effects of suppressed inflation on production efficiency.

**The International Bank for Reconstruction and Development.** The International Bank for Reconstruction and Development (World Bank) is an international cooperative institution created through the efforts of the member countries, designed to help finance sound projects for reconstruction and development—reconstruction in war-torn countries, and development of world economic resources, particularly in underdeveloped regions. It may be described as a bridge from war to peace, and from government to private financing in the underdeveloped countries.

The articles of agreement of the Bank were drawn up by the United Nations Monetary and Financial Conference at Bretton Woods, New Hampshire, in July 1944. On December 27, 1945 the articles of agreement were signed by 28 governments. After an inaugural meeting of the Board of Governors held at Savannah, Georgia, in March 1946 at which the first Executive Directors were elected, the bank officially began operations in Washington, D. C., on December 25, 1946. There

are now 60 (1957) member countries. Russia and her satellites are among the non-member nations.

ADMINISTRATION. All powers of the Bank are vested in the Board of Governors which consists of one member appointed by each member country. The board elects one of its members as chairman. The Board of Executive Directors is responsible for the general operations of the Bank. There are 12 members, 5 of which represent the 5 nations having the largest number of shares. The remaining 7 members are selected by the board, excluding the governors representing the 5 nations having the largest number of shares. (United States, Great Britain, China, France, and India had the largest number of shares and votes in 1949.)

The Board of Governors may not delegate to the executive directors 8 vital powers listed in the Articles of Agreement. These restrictions are similar to those existing in the International Monetary Fund Agreement (see page 183).

PURPOSE. The Bank is a joint effort, on a world-wide scale, to guide international investment in economically sound channels. It seeks to facilitate international flow of capital to increase production, both in war-devastated countries and in relatively undeveloped areas of the world. It aims to aid its member countries to attain and maintain a balanced national economy where exports of goods and services can eventually pay for an adequate volume of imports and thus contribute to healthy expansion of international trade. These purposes and general policies of the bank are defined in its Articles of Agreement.

The Bank's first emphasis had been on reconstruction because in that field there was not only urgency but also great opportunity for rapid improvement in the level of productivity, and with it, improvement in the level of world trade among all members of the Bank.

Since 1952, the lending emphasis has been on economic development. In 1955, about three-quarters of the over $400 million loaned was to under-developed areas. In 1956 the Bank established the International Finance Corporation with authorized capital of $100 million. Membership is open to the 60 nations that are members of the Bank. In general, the Corporation will aim to stimulate, and to help to create conditions which will stimulate, the flow of both domestic and international private investment into productive private enterprises. For example, the Corporation may invest varying amounts depend-

ing on need and without government guarantee. The Bank's charter does not permit this degree of latitude.

METHOD OF LENDING. The Bank lends funds in three definite ways:

1. It may lend funds directly, either from its capital fund or from funds which it borrows in the investment market.

2. It may guarantee loans extended or participate in such loans.

3. It may make, guarantee, or participate in loans to member countries directly or to any of their political subdivisions or to business enterprises in the territories of members. When a member government in whose territory the loan is located is not itself a borrower, this member government, its central bank, or comparable agency acceptable to the bank, must guarantee the loan. The Bank is primarily a cooperative rather than a profit-making institution. Its objective in fixing interest and commission charges is to secure only enough margin on its operations to meet its own expenses, including the cost of borrowing, and to provide reasonable reserves.

The Bank does not propose to wait for people to come and ask it for loans. However, thus far the principal work has been to consider loan applications presented by its members. In considering the applications, the Bank has examined them in relation to the economies of the respective countries as a whole and has made constructive recommendations designed to adapt the proposed projects to the needs of the respective economies. Apart from its consideration of loan applications, the Bank plans constantly to study the financial and ecomonic developments throughout the world and vigorously to pursue its objective of encouraging international real investment.

The Bank has not established any scale of priority as among different kinds of loans. Each application is considered on its merit in the light of the circumstances of the particular country. Among the practices considered are the extent and urgency of the need for a loan (this has resulted in priority to reconstruction loans rather than development loans), the prospects of aid from other sources, and the relative importance of the project in the general rehabilitation of the world economy.

FINANCES. The Bank's total capital is derived from capital shares subscribed by the member countries. The authorized capital stock consists of 100,000 shares with a par value of $100,000 each, purchasable only by members. The shares are transferred to the Bank. Total subscribed capital amounts to the equivalent of $9.5 billion. Only 20 per cent of the total

subscribed is paid-in capital, and it is only this portion of the Bank's subscribed capital which may be used for loans. Of this, only 2 per cent is in the form of gold or United States dollars immediately available for lending; the remaining 18 per cent is in the currencies of various member nations.

LOANABLE CAPITAL FUNDS. The total subscription of the United States is $3,175 million. Only 20 per cent, or $635 million, of this amount can be used for loans. The remainder, $2,540 million, can be called by the bank to meet bank obligations, but is not available for lending.

Although calls will be made on all members in proportion to the amount of stock which they own, the obligation of each member to meet such calls is independent on the obligations of other members. Each member, including the United States, is liable to the full amount of its unpaid subscription if it is required to meet the bank's obligations, irrespective of whether other members meet their calls for this purpose. The Bretton Woods Agreement Act authorized the United States Secretary of the Treasury to pay this subscription of the United States to the bank from time to time when payments are required.

The 18 per cent of the Bank's capital stock which is paid in, in the currency of the respective countries, can be lent only with the approval in each case of the member whose currency is involved. Only a few members, including the United States, have thus far approved lending any part of the 18 per cent paid in domestic currencies. Most members of the Bank are not now in a position to permit export of capital and, therefore, to consent to the loan of their currencies by the Bank. As time goes on however, the Bank expects to have an increasing amount of currency other than the United States dollars available for lending. In 1955, $43 million of additional lendable funds came from this source.

EXPANDING LOANABLE FUNDS. Measured against world needs, the funds available for lending out of the Bank's capital stock will be inadequate. For that reason, the Articles of Agreement of the Bank specially empower it to borrow money with the approval of the government from whose market the money is borrowed. The first sale of bonds by the Bank was made in the United States in July, 1947. As conditions permit, and as the World Bank has needed funds, it has periodically sold its securities in the major money markets of the world. In 1955, bonds to cover financing needs were sold entirely outside the United States.

Subject to various qualifications as to amounts and certain

other conditions in some states, the Bank's bonds at this time are legal for investment by commercial banks in 39 states and the District of Columbia, by savings banks in 21 states and the District of Columbia, by insurance companies in 27 states, and by trust funds in 28 states and the District of Columbia. The United States Comptroller of the Currency has ruled that National banks can invest in the Bank's bonds up to 10 per cent of their capital and surplus funds.

The bonds of the Bank are a general obligation and are not secured by any pledge of specific assets. As a general obligation, the bonds have behind them the entire resources of the Bank.

Funds which the Bank obtains are used to make loans. These loans are made only for production purposes and only after due consideration of the prospects of repayment. Further, the Bank is required to make appropriate arrangements to insure that the proceeds of the loan are used for the purposes for which the loan was made.

BASIS FOR LOAN GRANTS. In its consideration of a loan, the Bank must satisfy itself on the following points:

1. The borrower is not able to obtain the loan elsewhere on reasonable terms.

2. The terms proposed for the loan—interest, other charges, and schedule of repayment—are fair to the borrower and appropriate to the project.

3. There is a reasonable prospect that the borrower, and a grant guarantor also, if there is one, will be able to meet the obligations contracted under the loan.

4. If the member of the Bank is not the borrower, the loan must be guaranteed by the member in whose territory the project is located or by its central bank or comparable agency to be acceptable to the International Bank.

# QUESTIONS and ANSWERS

**Questions:**

1. What is the international gold standard?
2. What is the difference between the United States returning to the gold standard and the United States returning to the international gold standard?
3. What is the organization and purpose of the International Monetary Fund?
   See the discussions on pages 181–184.
4. What is the organization and purpose of the International Bank for Reconstruction and Development?
   See the discussions on pages 184–188.
5. How does the International Monetary Fund operate to mobilize the monetary reserves of the world?
6. How has the International Monetary Fund affected the use of exchange controls and the handling of scarce currencies?
7. What were the chief changes arising from the establishment of the International Monetary Fund in the determination of the international value of domestic currencies?
8. What is meant by a *hard currency area* and a *soft currency area?*
9. What is the most important United States policy-making body in the field of international finance?
10. What is the Marshall Plan?
11. What is GATT?
12. If a nation is experiencing a favorable balance of trade (exports exceed imports), how are international payments brought into balance?
    See the discussions on pages 178–180.
13. What is the usefulness of the balance of payments statement?
    See the discussions on pages 176–177.

**Answers:**

1. Essentially the gold standard is the *automatic gold standard.* It requires that all valuations, including the valuation of other forms of money, be made by reference to a specific quantity of the commodity gold. In addition it requires that a nation be willing to have its domestic prices forced down if they are higher than those prevailing in other nations. A nation cannot be on the gold standard unless it permits the automatic contracting and expanding effects of gold shipments to affect the supply of money and prices. Willingness to permit gold movements to have their full effect on prices is essential. A nation with a money system based on gold, which utilizes central bank procedures to affect prices, has a *managed gold standard.*

2. Return to the international gold standard requires acceptance of the principles of this standard by the majority of the commercial nations of the world, whereas the United States can restore the gold standard through unilateral action.

The international gold standard requires that prices be dominated by the condition of the foreign exchange markets rather than the conditions of the domestic commodity and labor markets. It also requires that the flow of gold from the United States and the other countries on the standard be permitted to bring into existence deflationary and inflationary conditions; that is, external disequilibrium must be acquired through internal changes.

3. See the discussions on pages 181–184.

4. See the discussions on pages 184–188.

5. Each nation belonging to the Fund must deposit with it 25 per cent of its subscription total in gold, and the remaining 75 per cent in quantities of its own currency. These reserves may be drawn on by member nations in limited quantities. A member nation may not draw on the Fund's reserves by more than 25 per cent of its subscription quota in any 12-month period, and the total withdrawal of Fund reserves by a single nation may not exceed 125 per cent of its quota.

6. The Fund forbids exchange restrictions by its members which prevent payment for goods and services, interest, and

other moderate current uses of funds. Restriction of capital transfers is permitted. However, during the transition period which was originally designated as ending in 1952, exchange restrictions were to be tolerated. In 1952 the Fund reported that only 1/6 of the members did not use exchange restrictions and that consultation on their removal was just getting underway. Restrictions to allocate a currency declared *scarce* by the Fund will always be permitted. Also, the Fund must ration its supply of scarce currencies to all member countries. The dollar has been declared a scarce currency.

7. Prior to the establishment of the Fund, the setting of the relative value of a nation's currency was considered a domestic matter. Now, members of the Fund are not permitted to vary their international currency values by more than 10 per cent unless they receive prior Fund approval. Furthermore, the Fund is required to rule for or against a change of 20 per cent within three days of the presentation of the request. The Fund may state its position toward a larger change in a more leisurely fashion.

The Fund provides for changes in currency values within an established framework based on established principles considered important to maintain desirable international exchange relations. It is expected that the safeguards will be adequate to prevent competitive devaluation and attempts to export unemployment.

8. A hard currency area during the postwar period has meant an area possessing a domestic currency freely convertible into dollars. A soft currency area during the postwar period has meant an area possessing a domestic currency not freely convertible into dollars.

9. It is the National Advisory Council on International Monetary and Financial Problems, composed of representatives of the Department of State, the Treasury, the Federal Reserve Board of Governors, the Export-Import Bank, and the Department of Commerce. Its principal job is to coordinate the foreign financial activities of the federal government.

10. It is an economic program put into effect by the United States and the principal nations of Western Europe. Its aim is to make Western Europe economically self-supporting. This is to be brought about under a program of United States grants

and loans and the development of a self-help program in Europe. The plan was established in the Foreign Assistance Act of 1948 and was administered by the Economic Cooperation Administration (ECA). By 1956, the aim of this program and its supplements had been largely met. The new name of the federal government agency administering foreign aid programs is International Cooperation Administration (ICA).

11. It is the General Agreement on Tariffs and Trade negotiated in Geneva in 1947. It has provided for the reduction of tariff restrictions on a multilateral basis through a series of international conferences. It is estimated that this program plus the U.S. trade agreement program have reduced the average U.S. tariff rate from 48 per cent in 1930 to 15 per cent in 1956.

12. The excess of exports must be balanced with service items, such as tourist expenditures, shipping, and insurance; by returns on investment such as dividends and interest, and by loans extended to foreign purchasers or by gold imports. An excess of exports over imports necessitates provision of funds to foreigners in one or a combination of the above ways.

13. The balance of payments statement does not prove any particular economic policy to be correct or incorrect. It does, however, prevent false statements regarding foreign transactions from gaining credence. For example, the statement shows to all who desire to see that if more goods and services are sold to foreigners than are purchased, the funds to make this purchase must be obtained in some manner and usually through extension of loans by the seller. This relationship has had a dampening effect upon enthusiasts interested in continuing the expansion of exports and the reduction of imports.

# PRACTICE FINAL EXAMINATION

This examination is of three parts. The first part consists of statements that are either false or true. The second part consists of multiple choice statements. The third part describes monetary actions to be recorded on a consolidated member bank statement of condition and the Federal Reserve's balance sheet.

See page 219 for Answers

**Part I. (30)**

If the statement is false encircle the F. If the statement is true encircle the T. If you consider the statement partly false and partly true encircle the F.

T F 1. Government long-term agricultural credit activity did not start until the 1930's.

T F 2. The aggregate of time deposits of commercial banks is much smaller than that of the Mutual Savings Banks.

T F 3. The Uniform Small Loan Law is concerned with the terms on which credit may be legally extended to meet personal needs.

T F 4. The total of savings kept in the Savings and Loan Associations is considerably greater than the total kept in the Mutual Savings Banks.

T F 5. The concept of a general price index as a measurement of the value of money is weakened by the tendency of prices of different products to move in opposite directions.

T F 6. In the United States most savings are made by businesses and are used for investment by these same businesses.

T F 7. T in the Fisher equation of exchange stands for time.

T F 8. A commercial bank would continue to be able to create money if the reserve requirements were raised to 100 per cent.

T F 9. The United States Constitution provided for the establishment of a central bank similar to the Federal Reserve System.

T F 10. An open-market purchase by the Federal Reserve tends to reduce the ability of commercial banks to extend loans.

T F 11. The Board of Directors of each of the twelve Federal Reserve Banks is appointed by the Board of Governors of the Federal Reserve System.

T F 12. Under the conditions of a fractional reserve commercial banking system a very great increase in the rate of discount would be necessary to raise the cost of borrowed funds by a modest amount.

T F 13. The term, primary deposit, refers only to a deposit of gold or silver.

T F 14. Our National Banking System is younger than the state banking systems of most of the states east of the Mississippi.

T F 15. The primary concern of the Federal Banking Act of 1935 was with the future safety of the nation's banking system.

T F 16. In 1950 loans started to rise rapidly and the increase has continued without the total again declining even as much as it did in 1949. (up to 1957).

T F 17. A Federal Reserve note is a credit instrument of the promise-to-pay type while a check is a credit instrument of the order-to-pay type.

T F 18. A fundamental feature of the commercial banking system of the United States is its centralization.

T F 19. The current high degree of liquidity has caused monetary theory to reduce the emphasis it places on the quantity of money and to increase its emphasis on the different ways liquid assets may be used.

T F 20. The Suffolk system established a procedure for the redemption of paper money issued by commercial banks in the area around Boston.

T F 21. The Glass-Steagall Act provided for issuance of Federal Reserve notes against federal government bonds held by the Federal Reserve Banks.

T F 22. The United States has never had a bimetallic standard.

T F 23. Commodity money is money that possesses as great a value when in the form of goods or commodities as when stamped and given the power of legal tender.

T F 24. The gold exchange standard was in effect in most of the leading nations prior to 1914 and provided for the circulation of gold coins and the conversion of all types of money into gold.

T F 25. The balance of international payments is considered unfavorable when the demand for foreign exchange is greater than the total demand for the national currency by foreign nations.

T F 26. The funds loaned by the World Bank arise largely from deposits received from the central banks of the world.

T F 27. The International Monetary Fund (IMF) accepts the concept of the automatic gold standard that domestic prices rather than the international value of the monetary unit should adjust to changed conditions.

T F 28. Russia has managed to block most actions contemplated by the World Bank and the IMF.

T F 29. The net foreign private investment of the United States is very high because of the shortage of dollars throughout the world.

T F 30. The concept of savings used when it is said that savings equal investment is that of gross savings.

**Part II. (40)**

Encircle the letter preceding the one or more word groups that correctly complete the statement.

31. A commercial bank is primarily in the business of
    a) extending loans
    b) holding government debt
    c) collecting unpaid bills
    d) keeping books for its depositors

32. An individual commercial bank receiving additional reserves
    a) may increase loans by five times the amount of the additional reserves if the reserve requirement is 20 per cent
    b) does not have the ability to increase its holdings of government securities

c) may increase its loans and investments by approximately the amount of additional reserves
d) will usually be able to increase its earnings

33. A principal purpose of the International Monetary Fund is to
    a) hasten economic development of low income areas of the world
    b) work toward the eventual removal of restrictions on foreign exchange transactions
    c) work toward the eventual repayment or repeal of all war debts
    d) insure that any major changes in foreign exchange practices will be submitted to international consultation before being put into effect

34. It is dangerous to advocate a policy of more money whenever the economy seems to be experiencing some difficulties because
    a) more money may cause prices to fall rather than rise
    b) the basic cause of the difficulty may not be removed
    c) experience of many nations has shown that more money may cause more difficulties than it removes
    d) more money today is very apt to lay the foundation for yet more money tomorrow

35. The concept of liquidity preference refers to
    a) the desire to keep money as such rather than to use it to acquire goods and services
    b) the relationship between the quantity of money and the level of prices
    c) the tendency of persons to increase their stock of money when prices are rising
    d) the ratio of deposit money to currency

36. The currency and the banking principals of issuing money differ in that
    a) the currency principal requires only the issuance of gold and silver while the banking principal is less specific
    b) under the banking principal money is increased when the need expands while this is not the basis under the currency principal
    c) under the currency principal the quantity of money is fixed while under the banking principal the quantity of money may vary

d) under the banking principal the amount of money is determined by changes in need, while under the currency principal the quantity may not exceed the value of gold or silver held

37. The First and Second Banks of the United States were unpopular because they
    a) charged the federal government too high an interest rate
    b) were unprofitable and had to be subsidized
    c) refused to lend to the federal government
    d) forced strict standards of liquidity upon state banks
38. National bank notes were secured by
    a) special United States bonds issued for that purpose
    b) a special tax levied on state bank notes
    c) silver purchased under the Sherman Silver Purchase Act
    d) discounted commercial paper and liquid bank assets
39. It was intended originally that the Federal Reserve would provide an elastic money supply by
    a) issuing paper money based on discounted commercial paper
    b) relating money supply to balance of payments
    c) increasing and decreasing money supply by a fixed percentage based on studies of seasonal trends
    d) requiring all member banks to meet the needs of their depositors.
40. A fundamental feature of the United States commercial banking system is the
    a) nation-wide branch banking system
    b) many relatively weak independent banks
    c) dual banking system
    d) quantity of long-term loans
41. Liquidity preferences have been recently (between 1945-1957)
    a) increasing
    b) decreasing
    c) changing very little if at all
    d) eliminated through special legislation
42. A major contribution of the Federal Reserve System is that it
    a) gave checks on nearly all banks' par value in all parts of the country
    b) eliminated the need for borrowing by the federal government

c) effectively prevented fluctuations in the value of the U. S. dollar
d) combined the small commercial banks into effective competing units

43. The relative economic power of the commercial banking system is much less now than in the 1920's because of
a) the influence of federal government legislation affecting the terms of credit
b) the slower growth of the economy
c) the growth of specialized financial institutions
d) the increased importance of the interrelations between the Treasury and the Federal Reserve

44. The principal function of the Commodity Credit Corporation is to
a) finance the federal government's parity price program in agriculture
b) provide short-term funds to raisers of beef cattle
c) act as an intermediary financial agency
d) market surplus agricultural products abroad

45. Secondary deposits result from
a) all deposits of cash or checks on other banks
b) only deposits of cash
c) bank loan expansion
d) bank loan contraction

46. Intradistrict clearing refers to
a) agricultural credit clearings
b) checks not cleared at local clearings but drawn on and accepted for deposit in banks belonging to the same Federal Reserve district
c) the process of clearing a check deposited in a commercial bank of a Federal Reserve district different from the district of the bank on which the check was drawn
d) the process of clearing international payments

47. During the stock market boom of 1955-56, loans to brokers and dealers
a) rose rapidly
b) declined slightly
c) rose slightly
d) did not change

48. The legal reserves of commercial banks that are members of the Federal Reserve System show up in the Federal Reserve statement as

a) deposits of the Federal Reserve Banks.
b) gold holdings of the Federal Reserve System.
c) Federal Reserve notes outstanding
d) deposits of the Treasury

49. The rate of interest paid by commercial banks on demand deposits is
a) dependent on the decision of the bank's management
b) usually 1 per cent
c) zero
d) set by the Board of Governors of the Federal Reserve System

50. The Federal Reserve Board has the power to change member bank reserve requirements by
a) not more than double the 1937 level
b) not more than double the 1917 level
c) 100 per cent for central reserve city banks, 50 per cent for reserve city banks, 25 per cent for country banks and 10 per cent on time deposits
d) any amount that the Board thinks the economic conditions demand

51. The impact of the Federal Reserve System on the economy is largely dependent upon the
a) size of the federal government's deficit
b) quantity of savings
c) effectiveness of the interest rate in regulating economic activity
d) distribution of the economy's liquidity

52. When the purchases of durable consumer goods are high, consumer credit is likely to
a) rise more rapidly than personal income
b) provide an important portion of the purchasing power used
c) fall slightly
d) rise but more slowly than personal income

53. Level premium type of life insurance causes savings because
a) many policies are not continued up to death
b) the early premiums are much higher than is needed to meet actual risk costs
c) life insurance is considered a part of the savings total
d) they are frequently changed into an annuity-type policy

54. The federal government extends credit aid to agriculture through the

a) Federal Intermediate Credit Banks
b) Production Credit Associations
c) Federal Reserve Banks
d) Production Credit Corporations

55. The Small Business Administration has explored a new procedure of extending credit to small business which is based on the
    a) establishment of many branch offices in small towns and villages
    b) centralization of activities in Washington and relying entirely on the advice of members of Congress
    c) wide distribution of government guaranteed securities
    d) use of state Development Credit Corporations
56. The activities of the Export-Import Bank have been
    a) continued despite some overlapping with those of the World Bank
    b) eliminated as being no longer needed
    c) broadened to include production and development loans
    d) canceled in areas receiving World Bank assistance
57. Term loans have become a popular type of commercial bank lending because of the need for
    a) business loans suitable to finance purchase of equipment
    b) an expansion of business savings
    c) meeting the competition of mortgage companies
    d) funds to purchase securities
58. National banks are regulated by the
    a) National Banking Corporation
    b) Commercial banking section of the Department of Commerce
    c) Comptroller of the Currency
    d) National Bank Bureau of the Budget

**Part III (30)**

Indicate in the transaction columns the results of the transactions described below. Indicate a rise by a +; a fall by a —; and no change by a 0. There is no change in time deposits. Assume that:

1) all payments are made by check and all receipts are deposited; 2) the Treasury's account is held at the Federal Reserve; 3) member banks have excess reserves unless other-

wise stated. Because the effect of the transactions on the public and the Treasury are not shown the changes recorded may not balance.

Each transaction column correct is worth 3 points; one error, 2 points; two errors, 1 point; three errors, 0 points.

**Transactions:** (It is assumed that all funds of individuals are on deposit with their commercial bank and that all commercial banks have excess reserves.)

59. Income taxes are paid. The Treasury increases its balance with the Federal Reserve by the amount of these payments.
60. The Treasury repays an issue of securities entirely held by individuals with funds from its balance with the Federal Reserve.
61. The Treasury repays an issue of securities entirely held by commercial banks with funds from its balance with the Federal Reserve.
62. The Treasury repays an issue of securities entirely held by the Federal Reserve Banks with funds from its balance with the Federal Reserve.
63. Commercial banks purchase government securities in the open market from individuals.
64. The Open Market Committee of the Federal Reserve System has the New York Federal Reserve Bank purchase two billion dollars of federal government securities from individuals.
65. The Open Market Committee of the Federal Reserve System has the New York Federal Reserve Bank sell two billion dollars of federal government securities to individuals.
66. The commercial banks are short of reserves and the Open Market Committee orders a large sale of federal government securities which are entirely purchased by commercial banks with funds obtained through discounting with their Federal Reserve Banks.
67. The Open Market Committee of the Federal Reserve System has the New York Federal Reserve Bank sell one billion of federal government securities to commercial banks.
68. The Treasury sells a new issue of federal government securities to individuals and deposits the receipts in member banks.

See page 221 for Answers

| | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 |
|---|---|---|---|---|---|---|---|---|---|---|
| All Member Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Cash in vault | | | | | | | | | | |
| Reserves with Federal Reserve Bank | | | | | | | | | | |
| Loans | | | | | | | | | | |
| U. S. Securities | | | | | | | | | | |
| Liabilities: | | | | | | | | | | |
| Adjusted demand deposits | | | | | | | | | | |
| Time deposits | | | | | | | | | | |
| U. S. government demand deposits | | | | | | | | | | |
| Advances from Federal Reserve Banks | | | | | | | | | | |
| Amount of Total Reserves | | | | | | | | | | |
| Amount of Required Reserves | | | | | | | | | | |
| Excess Reserves | | | | | | | | | | |
| Federal Reserve Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Gold Certificates and other cash | | | | | | | | | | |
| U. S. Securities | | | | | | | | | | |
| Bills discounted and advances on notes | | | | | | | | | | |
| Liabilities: | | | | | | | | | | |
| Federal Reserve Notes | | | | | | | | | | |
| Member Bank Reserves | | | | | | | | | | |
| U. S. Treasury Account | | | | | | | | | | |
| Amount of Total Reserves | | | | | | | | | | |
| Amount of Required Reserves | | | | | | | | | | |
| Reserve Ratio | | | | | | | | | | |

# GLOSSARY of TECHNICAL TERMS

**Acceleration principle.** The change of investment arising from a given change of consumption expenditures.

**Acceptance.** A time draft (bill of exchange) on the face of which the drawee has written the word "accepted," the date it is payable, usually the place where it is payable, and his signature. Thus an acceptance is an obligation which the drawee has agreed to pay at maturity. After accepting the draft, the drawee is known as the acceptor. See also Bank acceptance and Trade acceptance.

**Aldrich-Vreeland Act.** An act adopted in 1908. It arose directly out of the panic of 1907. The principal provisions provided for establishment of national currency associations to expand the quantity of money during an emergency; it also authorized Congress to establish the National Monetary Commission.

**Aldrich Plan.** The plan of the Republican party to establish a central banking system in 1912. It was based on the findings of the National Monetary Commission provided by the Aldrich-Vreeland Act.

**Advances.** Loans made by Federal Reserve banks to increase the reserves of member banks. Discounts and advances in the Federal Reserve statement include bills discounted, bills bought, and industrial advances.

**Amortization.** Gradual reduction of a debt by means of equal periodic payments sufficient to meet current interest and extinguish the debt at maturity. When the debt involves real property, often the periodic payments include a sum sufficient to pay taxes and insurance on the property.

**Antifraud acts.** Provide for prosecution of violators of blue-sky laws.

**Arbitrage.** The sale and purchase of foreign exchange to remove the geographical imperfections in the foreign exchange market.

**Assignats.** French paper money secured by French land and issued between 1790 and 1796 to finance the French Revolution. This money became worthless.

**Balanced budget.** An equality between the bookkeeping budgetary expenditures and receipts.

**Bank acceptance.** A draft drawn on a bank and accepted by the bank.

**Bank Charter Act of 1844.** Basic British banking act which gave the Bank of England a monopoly of note issue, set a definite quantity of fiduciary note issue, and provided that all bank notes issued in addition to this amount be backed 100 per cent by gold. It was a victory for the currency school and a defeat for the banking school theories.

**Bank debits.** The volume of checks cleared through clearing associations and debited to individual accounts. The division of bank debits by the average quantity of deposits gives an estimate of deposit velocity.

**Bank draft.** A check drawn by one bank against funds deposited to its account in another bank.

**Bank holiday.** President Roosevelt declared a national bank holiday to last from March 6, 1933 through March 10 as a method of halting the money panic.

**Bank of England.** The central bank of Great Britain. It is now owned and controlled by the British government.

**Banking school.** Those who believe that the quantity of money should be determined by the needs of business. The needs of business are assumed to be indicated by the quantity of self-liquidating commercial loans.

**Barter.** The direct exchange of goods and services possessed for goods and services desired. Money is not used as a unit of value or a medium of exchange.

**Bearishness.** The motive to hold cash that is basic to the speculative motive. Cash is held because prices are expected to fall below present levels.

**Bimetallism.** Two metals, usually gold and silver, serve as the standard metals.

**Blue-sky laws.** State legislation licensing sellers of securities and permitting only the sale of securities permitted by the state securities commission.

**Bond.** An interest-bearing debt certificate under seal which promises that the issuer (a government or a corporation) will pay a certain sum of money to its holder on a specified date. In effect, it is a long-term loan by the bondholder (lender) to the issuer (borrower).

**Bond reserve plan.** Would require commercial banks to hold reserves as government securities as well as deposits in Federal Reserve banks or required reserves of non-member banks.

**Book value.** The value placed on an asset in the accounts of the owner. This may be less or greater than the price that could be obtained at a given moment.

**Bonus plan, savings and loan account.** Saver agrees to deposit a regular amount each month for a period of time. If the agreement is maintained the saver will earn an additional return of as much as 1 per cent.

**Broker.** A middleman who brings together buyers and sellers of the same security or commodity and executes their orders, charging a commission for his services.

**Budget.** A plan by a firm or unit of government of its financial activities for the next fiscal period.

**Bullion.** Uncoined standard metal, usually in the shape of bars. Standard gold bullion is nine-tenths fine and one-tenth alloy.

**Bullionist school.** The monetary theory of the 16th century which taught that the welfare of a nation depended upon the store of bullion it maintained.

**Call loan.** A loan made on a day-to-day basis, callable on twenty-four hours' notice. Typically, these loans are made to members of the New York Stock Exchange to facilitate the exchange of securities.

**Capitalization.** The value of an investment determined by dividing the annual net income flowing from the investment by the prevailing rate of interest. It is assumed that the income will flow from the investment indefinitely.

**Cash-balance approach.** Examining the effect of money by determining the reasons why people haven't spent all they have received.

$$\left(P = \frac{M}{KT}\right)$$

**Cashier's check.** A check drawn by a bank on itself and signed by the cashier or other authorized officer. It is also called *officer's check.*

**Certificate of deposit.** A receipt for funds left with a bank as a special deposit, generally interest bearing.

**Certified check.** A depositor's check across the face of which an officer of the bank or another authorized person has stamped the word "certified" and the bank's name and then

has signed his own name. By its certification the bank guarantees that sufficient funds have been set aside from the depositor's account to pay the check when payment is demanded.

**Chain banking.** An arrangement whereby the control of a number of banks is exercised through entire or majority ownership of stock by a group of individuals, who take an active part in formulating the policies of the banks in the group. See also Group banking.

**Chancery courts.** State courts responsible for guardian or trustee for the infant or the incompetent.

**Chattel mortgage.** A mortgage with title to some form of personal property given as security.

**Clearinghouse.** A place where representatives of the banks in the same locality meet each day at an agreed time to exchange checks, drafts, and similar items drawn on each other and to settle the resulting balances. The association operating the clearinghouse also frequently consults to take concerted action on matters of common interest.

**Collateral loan.** A loan which is secured by the pledge of specific property, the borrower depositing with the lender either the property itself or a document bearing evidence of title to the property.

**Compensated standard.** Amount of metal in standard unit changed to compensate for price changes. If prices were rising the amount of metal in the standard unit would be increased, if prices were falling the amount would be decreased.

**Comptroller of the Currency.** An appointed official who is responsible for the chartering, supervision, and liquidation of National banks. His office is located in the Treasury Department.

**Convertible securities.** Usually a corporate bond or preferred stock which at the option of the investor may be exchanged for some other form of security, generally common stock.

**Correspondent bank.** A bank which carries a deposit balance for a bank located in another city or engages in an exchange of services with it.

**Counterpart funds.** Balances in domestic currency of countries receiving U.S. assistance, arises from sale of goods purchased abroad with foreign exchange provided by the U.S.

**Credit.** An advance of cash, merchandise, or other commodity in the present in exchange for a promise to pay a definite sum at a future date, with interest if so agreed.

**Credit-Austalt.** Largest bank of Austria which failed in May, 1931 and sparked the international money panic which forced England off the gold standard in September, 1931.

**Credit exchange bureau.** It assembles and distributes facts taken from the ledgers of members. It does not offer ratings, this is left up to the individual credit men of the members.

**Crime of '73.** The Coinage Act of February 12, 1873, which discontinued free coinage of silver. It was considered unimportant at time of its passage because the bullion value of silver was greater than its monetary value.

**Currency.** Technically, any form of money which serves as a circulating medium, and includes both paper money and metallic money (coins). In banking terminology the term generally refers only to paper money.

**Debt.** The other side of the extension of credit. The amount owed by one party to another through having been extended credit.

**Default.** Failure to meet interest payments and principal payments on the date indicated in the debt contract.

**Deficit spending.** Financing spending with borrowed funds.

**Devaluation.** The process of either or both reducing the quantity of gold which the domestic money unit contains and reducing the price of the domestic currency in terms of other currencies.

**Discount.** 1. The amount of interest withheld when a note or draft is purchased. 2. A note on which the interest is paid in advance. 3. The process of making a loan by requiring a note larger by the agreed interest charge than the amount paid to the borrower or credited to his account. A discount is distinguished from a loan by the fact that interest on a loan is collected at the time the note is paid.

**Double liability.** The requirement that stockholders of National banks and many state banks must match the par value of the stock they hold in case the bank in which they are shareholders fails. Since July 1, 1937, National banks have been permitted to terminate the requirement, and it is very uncommon today.

**Draft.** A signed written order addressed by one person (the drawer) to another person (the drawee) directing the latter to pay a specified sum of money to the order of a third person (the payee).

**Drawee.** The party who is directed to pay the sum specified in a check, draft, or bill of exchange.

**Drawer.** The person who makes and signs an order (check, draft, or bill of exchange) for the payment of money. See also Maker.

**ECU.** Non-circulating currency used by members of European Payments Union.

**Equity.** The value of collateral over and above the amount of the obligation it covers.

**Equity capital.** Capital provided by the owners of a business through the purchase of common and/or preferred stock.

**Escrow.** An instrument deposited for safekeeping pending the accomplishment of a specified event.

**Exchange.** 1. An amount charged for the collection of a check or other financial instrument. 2. The volume of funds available for use in another city or country. 3. An organization for trading in securities or commodities. 4. The purchase and sale of goods and services in a market.

**External drain.** The flow of currency from the banks to individuals and businesses.

**Face value.** The value written on the face of a security. In the case of bonds it is the amount the holder will receive when the bond matures. It is also called the *par value.*

**Federal funds.** Excess reserves loaned to banks short of reserves.

**Federal Reserve exchange drafts.** Drafts drawn on a Federal Reserve bank by any member bank. They are accepted by any Federal Reserve bank or branch.

**Federal Reserve note.** A noninterest-bearing promissory note of a Federal Reserve bank issued for general circulation as money and redeemable in lawful money on demand.

**Fidelity bond.** Guarantees the honesty of anyone in a position of trust.

**Field warehousing.** A warehouse facility at the place where the product in storage is produced, manufactured, or processed. It avoids movement of heavy and bulky commodities.

**Float.** The portion of a bank's total deposits or of a depositor's account which represents items (checks, coupons, etc.) in the process of collection. They are also called uncollected funds.

**Foreign bill of exchange.** A bill drawn in one state or country and payable in another state or country.

**Foreign Exchange.** 1. The mechanism by which payments are effected between two areas that employ different currency systems. 2. Currency used in making the settlement.

**Frazier-Lemke Farm Bankruptcy Act of 1935.** A federal measure which provided the requirement of a three-year moratorium on foreclosures of mortgaged farm property.

**Free gold.** The net amount of gold in the Treasury of the U. S. which is in excess of the total sum of gold necessary to redeem outstanding gold certificates and other gold indebtedness.

**Gold certificates.** Issued by the Treasury under the Gold Reserve Act of 1934 to the Federal Reserve System to replenish the reduction of the Treasury Federal Reserve account arising from its purchase of gold. These certificates are the legal gold backing of Federal Reserve notes and deposits.

**Gold points.** Indicate the price of foreign exchange in terms of the domestic currency at which it would be profitable to export gold (the gold export point) and profitable to import gold (the gold import point).

**Gold Standard Act.** An act passed by the U. S. Congress on March 10, 1900, which declared the gold dollar to be the standard unit of value, and directed the Secretary of the Treasury to keep all other kinds of money on a par with gold.

**Graham plan.** The commodity reserve standard.

**Gresham's law.** Under bimetallism the monetary metal whose market price in relation to mint ratio is relatively high is driven out of circulation and the cheaper metal becomes the monetary standard.

**Group banking.** An arrangement by which a substantial proportion of the stock of each bank in the group is held by a holding company engaged in the business of banking. The identity of the local bank remains intact, and its policies and operations are determined largely by its own board of directors.

**Hundred per cent reserves plan.** Requirement that banks keep 100 per cent reserves in back of their demand deposits.

**Hypothecate.** To give a creditor the right to cause personal property of his debtor to be sold to satisfy a debt. In a true hypothecation, the debtor (borrower) usually retains possession of the property until he defaults in meeting his obligation.

**Illiquidity.** The inability to transfer a credit instrument possess- a low degree of "moneyness" into a credit instrument possessing a high degree of "moneyness."

**Income circulation of money.** The total value of money transactions that is required for the production and sale of the national product.

**Independent treasury.** Fiscal agent of federal government from 1839 to 1913.

**Indorsee.** The holder of a negotiable instrument to whom it has been transferred by indorsement.

**Indorsement.** The signature plus any other writing on the back of an instrument by which the indorser transfers his rights in the instrument to another.

**Indorser.** A person who signs his name on the back of a negotiable instrument, such as a check, draft, or promissory note, for the purpose of transferring his title to the instrument or of guaranteeing its payment.

**Industrial banks.** Banks specializing in lending small amounts to industrial workers.

**Inflationary gap.** Difference between money value of sales of currently produced goods at current prices and the higher money value which would arise if sold on the free market.

**Interbank deposits.** Deposits made by one bank in another. See Correspondent bank.

**Interdistrict Settlement Fund.** Holds the greater part of the unencumbered Federal Reserve gold certificate holdings. It settles the differences between the total credits and debts of each Federal Reserve bank and acts as a clearinghouse for Federal Reserve banks.

**Internal drain.** The loss of currency by banks within the system.

**International wheat agreement.** A 1949 attempt to compromise the interests of wheat exporting and wheat importing countries. In 1958 it looks as though it will fail.

**Intestate.** A person who dies without making a will.

**Investment, financial.** Purchase of securities. Bank investment also refers to the purchase of securities.

**Investment, real.** Production of goods and services that are not completely consumed during the period under consideration.

**Investment banking.** The business of underwriting and distributing corporate and government securities.

**Investment motive.** Holding cash as an investment because it appears to be the most desirable type of investment available.

**Joint account.** An account in the names of two or more persons which requires a combination of signatures for establishment, but only one signature for deposit or withdrawal.

**Kited check.** A check that is given as payment prior to the deposit of funds to cover it. A kite is any fictitious commercial paper.

**Latin Monetary Union.** Established in 1865, it provided for the adoption of an international bimetallic-standard system by Belgium, France, Italy, and Switzerland. It also provided for issuance of uniform coins that would circulate freely within this international bimetallic area.

**Legal reserve.** The proportion of a bank's deposits (demand and time) which is required by law to be maintained in the form of cash or readily available balances to meet the demands of depositors. Members of the Federal Reserve System must keep their legal reserves on deposit with the Federal Reserve Banks of their respective districts.

**Legal tender.** Any kind of money (coin or currency) which the law prescribes as acceptable in payment of debts, unless there is a contract which calls for payment in a particular kind of money.

**Letter of credit.** An instrument issued by a bank to an individual or corporation by which the bank substitutes its own credit for that of the individual or corporation. Addressed to the seller, it authorizes him to draw drafts on the bank under the terms stated in the letter.

**Leverage.** Used in financial circles to indicate the intensified swings of common stocks of firms largely financed with preferred stocks and bonds. The term **trading on equity** is also used to refer to this relationship.

**Line of credit.** A term applied to the maximum amount of credit which a bank will extend to a particular borrower (usually a business concern) over a stated period, subject to certain conditions which must be met by the borrower, such as maintaining a specified checking account balance.

**Liquid holdings.** Assets that are considered money or which possess a high degree of cash convertibility.

**Maker.** The person who makes and signs a negotiable instrument. See also drawer.

**Mint ratio.** Relative values of a given weight of the standard metals established by the mint.

**Mint ratio of exchange.** See par of exchange.

**Money illusion.** The belief that an economic position has been improved when more money units are received or possessed even though they cannot be transferred into a larger quantity of goods and services.

**Money market.** The institutional arrangement consisting of investment banking houses, brokerage firms, organized stock and bond exchanges, and acceptance and commercial paper houses through which the market value of securities and the rates of interest are determined.

**Monthly aging report.** Required of borrower using aggregate accounts receivable as collateral. Shows the amounts of account receivables that are delinquent. This total is deducted from the loan base.

**Mortgage.** An instrument by which the borrower (mortgagor) gives the lender (mortgagee) a lien on real estate as security for a loan. The borrower continues to use the property, and when the loan is repaid, the lien is removed.

**Mutual savings bank.** A bank owned by the depositors and managed for them by a self-perpetuating board of trustees. It has no capital stock and therefore no stockholders.

**National Advisory Council on International Monetary and Financial Problems.** Established by Congress in the Bretton Woods Agreement (July 31, 1945) to coordinate the policies of all federal government appointees and agencies engaged in foreign financial, exchange, and monetary transactions.

**National Monetary Commission.** Establishd in 1908 by Congress to survey foreign and domestic banking and currency conditions. Its reports were the basis for the legislation establishing the Federal Reserve System.

**National numerical system.** The plan under which every bank in the United States has a distinctive number, which is usually printed below or beside the bank name on all forms in external use including checks. It is used in listing checks on deposit slips, in transit letters, and in many other ways. See also Transit number.

**Negotiable instrument.** An unconditional written order or promise to pay money, which can be transferred from one

person to another free from defenses between the original parties. The law lays down certain standards with which an instrument must conform in order to be negotiable.

**Open-market operations.** Sale or purchase of securities by the Federal Reserve System. Purchases on the open market increase bank reserves, and sales decrease bank reserves.

**Overdraft.** The amount by which checks paid against an account exceed the balance on deposit in the account.

**Over-the-counter market.** The market provided by bankers, brokers, dealers, and others for securities not listed on securities exchanges and for the general purchase and sale of bonds.

**Par of exchange.** The official relative value of two currencies stated in terms of gold, silver, or some third currency.

**Payee.** The person named in an instrument calling for the payment of money as the one to whom, or to whose order, payment is to be made.

**Paying teller.** A representative of the bank who is responsible for the proper cashing of checks presented at the window.

**Payments approach.** Examining the effect of money by determining the manner in which people spend their cash receipts. Also called income-expenditure approach. ($P = \frac{Y}{O}$)

**"Peg-leg" gold standard.** The name applied to the United States monetary standard from 1879 to 1890 because of doubtful convertibility of the silver dollar into gold. The standard had a "peg leg" made of silver.

**Penalty rate.** Usually refers to a rate charged by a central bank which is higher than that on the instrument offered for rediscount or as collateral for an advance.

**Personal loan.** A loan (usually small) made to an individual for his personal needs. See Consumer credit.

**Postal savings.** Savings system of the U.S. Post Office Department.

**Precautionary motive.** Holding sufficient cash to meet possible emergencies arising from an unexpected reduction of receipts and an unexpected increase of expenditures. Also called *margin-of-safety* motive.

**Preferential discount rate.** A rate of ½ per cent set by the Federal Reserve System on advances to member banks secured by short-term federal government obligations. The rate was utilized from October, 1942, to May, 1946, to encourage commercial banks to purchase government securities.

**Private bank.** An unincorporated bank which is owned and operated by an individual or a partnership. It may or may not be subject to supervision by the banking authorities, depending on the laws of the particular state in which it is located.

**Promissory note.** A written promise made by one person (the maker) to pay a certain sum of money to another person (the payee), or to his order, on demand or at a determinable future date.

**Qualitative credit control.** Central-bank credit control activities which determine the conditions under which particular types of credit may be extended.

**Quantitative credit controls.** Central-bank credit control activities which operate on the total quantity of credit available rather than particular types as do qualitative credit controls.

**Raised check.** A check on which the amount has been fraudulently increased.

**Real-bills doctrine.** States that commercial bank loans should be to businessmen, be secured by physical goods in the process of orderly marketing, and be repaid from the proceeds of the sale of the goods.

**Receiving teller.** A representative of the bank who receives and verifies deposits and issues receipts for them.

**Recording statute.** Requires notification that borrowing on accounts receivable is to take place before first assignee may collect. See validation statute.

**Refunding.** The issuance of new debt obligations to replace the old which have matured or which have been called.

**Registered check.** An ordinary personal check on which the bank teller has imprinted the amount with a check-writing machine. A service charge of 10 cents is usually made.

**Revolving letter of credit.** The letter reverts at specified intervals to the original amount. It may be cumulative, in which case the unspent portion of the previous period is added, or non-cumulative, in which case it is not. They are usually revocable; used primarily between domestic purchasers and purchasing agencies abroad. See letter of credit.

**Safety fund system.** A system that existed in the state of New York from 1829 to 1866 to provide protection of state bank note holders and depositors from a fund built up with assessments based on member bank capital. The plan was judged successful and provided a portion of the basis of the FDIC.

**Say's law.** Production of goods and services creates the demand for goods and services of an equal value. Production creates its own demand.

**Selective-asset-reserve plan.** It would base the quantity of bank reserves required on the character of the bank's assets rather than the quantity of deposits.

**Serial bonds.** Agreement provides for portions of the bonded debt maturing at different times throughout the life of the debt contract. Eliminates need for accumulation of sinking fund.

**Serial plan, savings and loan operation.** New accounts are only opened for a group semiannually or quarterly. It requires regular saving by all who join the series, say for one year. See bonus plan.

**Service charge.** A charge made by a bank for the cost of handling a depositor's account.

**Several account.** Several firms underwrite a new issue but each one participates separately rather than jointly as in a syndicate account. Each firm continues to have a definite commitment.

**Short-term debt.** Debt that matures in any time less than approximately a year after it is acquired.

**Sight draft.** A draft which is payable on presentation to the drawee—in other words, on "sight" or demand.

**Specie.** Coins made of precious metal, especially silver and gold. *Specie payments* are payments made in metallic money rather than paper money.

**Spot price.** Price for immediate ownership.

**Stabilization fund.** Established by nations during the 1930's to make the necessary purchases and sales of exchange to prevent violent fluctuations in the foreign value of their unit of value. The first one was established in Great Britain when she left the gold standard in 1931. The United States fund is called the *exchange stabilization fund.*

**Standard metal.** Metal selected to be the base of a monetary system; it is purchased in unlimited quantities at a fixed price, and the paper money and subsidiary coins can usually be converted either directly or indirectly into the standard metal.

**Standard money.** Money made of the standard metal. The bullion value of the coin is as great as the face value.

**Stop-payment order.** An order issued by a depositor to his bank instructing it to refuse payment of the check specified in the order.

**Straight life insurance.** See Whole life insurance.

**Subordination agreement.** Subordinates the claims against the company of those signing the agreement in favor of the person to whom the agreement is executed.

**Surety bond.** Guarantees a contract, an act, or an undertaking will be fulfilled.

**Surplus.** The accumulated profits of past periods remaining in the business. In a bank it represents the amount paid in by the stockholders in addition to their capital stock subscriptions when the bank is organized, and the amount (not available for dividends) added to capital from earnings.

**Symmetallic standard.** The standard unit of value is a definite quantity of a fusion or combination of two or more metals in some specified proportion to one another.

**Syndicate account.** Underwriting jointly a new security issue. Since 1933 most accounts underwriting corporate issues have been set up on the several account basis.

**Teller.** A bank representative who, in one capacity or another, transacts over-the-counter business with customers.

**Testator-trix.** A person who makes a will.

**Thomas Inflation Act.** An act that gave the President large discretionary powers that could be used to increase the quantity of money. It was passed by Congress as Title 3 of the Agricultural Adjustment Act of May 12, 1933; the powers granted have been permitted to expire.

**Trade acceptance.** A draft drawn by the seller of goods on the buyer. On its face there often appears a statement indicating that the acceptor's obligation arises from the purchase of goods from the drawer of the draft.

**Transactions motive.** Holding enough cash to take care of necessary expenditures during some future period when cash income is expected to be inadequate.

**Transit items.** Cash items which are payable outside the town or city of the bank receiving them for credit to customers' accounts.

**Transit number.** A key to the name and location of a bank under the national numerical system. The transit number has two parts; the prefix or first part designates the city or state in which the bank is located, and the second part indicates the name of the bank.

**Traveler's checks.** Special checks supplied by banks and other companies at small cost for the use of travelers. Those supplied by the American Express Company are used most frequently.

**Tripartite agreement.** Established by the United States, Great Britain, and France to stabilize the relative values of their currencies after the French devaluation of 1936. Other countries participated in the plan which functioned until 1939.

**Underwriting.** In investment circles, an outright purchase of securities offered or an agreement to buy an issue of securities if it is not completely sold by a particular day.

**Unearned discount.** Interest that has been collected but not yet earned.

**UNRRA.** United Nations Relief and Rehabilitation Administration. Active in relief operations largely with American funds from 1943 to 1947. It was anticipated that problems not solved by UNRRA would be met by the World Bank and the Fund. This proved not to be the case and the Marshall Plan was introduced in 1948.

**Usury.** The collection of interest rates above those permitted by law.

**Validation statute.** State legislation stating that the first assignee of an account receivable is entitled to collect the proceeds thereof, regardless of notification.

**Warrant.** A right to purchase, usually common stock, that is given to "sweeten" an issue of bonds or preferred stock. (Similar to convertible securities.)

**Whole life insurance.** Premiums paid over a lifetime and face value of policy paid to beneficiary upon death of insured. Annual premiums are lowest of any of the ordinary insurance policies. After several years there is a loan value and a surrender value. (Also called straight life insurance.)

**Wild cat banks.** State commercial banks in the 1830's and up to 1866 that issued notes far beyond redemption possibilities. They were usually located in distant and inexcessible places.

**Windfall.** Unforeseen and unplanned changes in economic well-being.

**Window dressing statement.** A financial statement that indicates a created temporary situation which makes the economic position of the bank or business corporation seem to be more favorable than the real condition warrants.

**Wire transfer.** An order to pay or credit money transmitted by telegraph or cable.

Terms not defined in the Glossary are defined in the text and will be found in the Index.

# FINAL EXAMINATION ANSWERS

**Part I (30)**

| | | |
|---|---|---|
| 1. F | 11. F | 21. T |
| 2. F | 12. T | 22. F |
| 3. T | 13. F | 23. T |
| 4. T | 14. T | 24. F |
| 5. T | 15. T | 25. T |
| 6. T | 16. T | 26. F |
| 7. F | 17. T | 27. F |
| 8. F | 18. F | 28. F |
| 9. F | 19. T | 29. F |
| 10. F | 20. T | 30. T |

**Part II (40)**

| | | |
|---|---|---|
| 31. a | 40. b, c, d | 50. b |
| 32. c, d | 41. b | 51. c |
| 33. b, d | 42. a | 52. a, b |
| 34. b, c, d | 43. a, c | 53. b |
| 35. a | 44. a | 54. a, b, d |
| 36. b, d | 45. c | 55. d |
| 37. d | 46. b | 56. a, c |
| 38. a | 47. c | 57. a |
| 39. a | 48. a | 58. c |
| | 49. c | |

**Part III (30)**

(Three points for each transaction recorded correctly)

Part I.....Points
Part II..... "
Part III..... "
Total..... "

See page 127 for Questions

| | Situations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| All Member Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Cash in Vault | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reserves with Federal Reserve Bank | − | 0 | 0 | 0 | 0 | 0 | + | − | 0 | 0 |
| Loans | 0 | 0 | 0 | − | 0 | 0 | 0 | 0 | + | − |
| U. S. Securities | 0 | 0 | 0 | 0 | − | 0 | 0 | − | 0 | 0 |
| Liabilities: | | | | | | | | | | |
| Adjusted demand deposits | − | 0 | 0 | − | 0 | − | + | − | + | − |
| Time deposits | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 |
| U. S. government demand deposits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Advances from Federal Reserve Banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amount of Total Reserves | − | 0 | 0 | 0 | + | 0 | + | − | 0 | 0 |
| Amount of Required Reserves | − | − | + | 0 | + | − | + | − | + | − |
| Excess Reserves | − | + | − | 0 | 0 | + | + | − | − | + |
| Reserve Ratio | − | + | 0 | + | + | 0 | + | − | − | + |
| Federal Reserve Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Gold Certificates and other cash | − | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| U. S. Securities | 0 | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 |
| Bills discounted and advances on notes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Liabilities: | | | | | | | | | | |
| Federal Reserve Notes | 0 | 0 | 0 | 0 | 0 | 0 | − | + | 0 | 0 |
| Member Bank Reserves | 0 | 0 | 0 | 0 | + | 0 | + | − | 0 | 0 |
| U. S. Treasury Account | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amount of Total Reserves | − | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amount of Required Reserves | − | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 |
| Excess Reserves | − | 0 | 0 | 0 | − | 0 | 0 | − | 0 | 0 |
| Reserve Ratio | − | 0 | 0 | 0 | − | 0 | 0 | − | 0 | 0 |

See page 201 for Questions

| | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 |
|---|---|---|---|---|---|---|---|---|---|---|
| All Member Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Cash in vault | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reserves with Federal Reserve Bank | − | + | + | 0 | 0 | + | − | 0 | − | 0 |
| Loans | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| U. S. Securities | 0 | 0 | 0 | 0 | + | 0 | 0 | + | + | 0 |
| Liabilities: | | | | | | | | | | |
| Adjusted demand deposits | − | + | 0 | 0 | + | + | − | 0 | 0 | − |
| Time deposits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| U. S. government demand deposits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Advances from Federal Reserve Banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 |
| Amount of Total Reserves | − | + | + | 0 | 0 | + | − | 0 | − | 0 |
| Amount of Required Reserves | − | + | 0 | 0 | + | + | − | 0 | 0 | 0 |
| Excess Reserves | − | + | + | 0 | − | + | − | 0 | 0 | 0 |
| Federal Reserve Banks: | | | | | | | | | | |
| Assets: | | | | | | | | | | |
| Gold Certificates and other cash | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| U. S. Securities | 0 | 0 | 0 | − | 0 | + | − | − | − | 0 |
| Bills discounted and advances on notes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 |
| Liabilities: | | | | | | | | | | |
| Federal Reserve Notes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Member Bank Reserves | − | + | + | 0 | 0 | + | − | 0 | − | 0 |
| U. S. Treasury Account | + | − | − | − | 0 | 0 | 0 | 0 | 0 | 0 |
| Amount of Total Reserves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amount of Required Reserves | 0 | 0 | 0 | − | 0 | + | − | 0 | − | 0 |
| Reserve Ratio | 0 | 0 | 0 | + | 0 | − | + | 0 | + | 0 |

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